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BEING THE CAVENDISH LECTURE DELIVERED BEFORE THE WEST LONDON MEDICO-CHIRURGICAL SOCIETY ON JUNE 20TH.

BY

SIR GEORGE MAKINS, G.C.M.G., C.B., P.R.C.S.,

HONORARY MAJOR-GENERAL.

IN making choice of a subject on which to deliver a short address my mind has naturally turned to the work which has, for the most part, engrossed my own attention during the past five years, and I must crave your forbearance if you should consider my remarks to be devoted to a matter rather administrative than scientific in character. None the less, I believe my subject to be one of prime importance to the future of both civil and military surgery, and it deals with a matter in which the lessons to be derived from the experience of the South African war seem to have been allowed to be lost sight of.

In turning to the practical lessons to be deduced from the recent great war the subject is so vast that it becomes necessary to limit a brief address to one single element of the work which has been performed, and I propose to claim your attention to the position of a consulting surgeon employed with the army. Yet even here a limitation must be drawn, for in this world-wide war the experiences of a consulting surgeon must to some extent have varied with the conditions under which he served and the country in which he was situated. Hence the remarks I shall make are founded principally upon the part of the campaign conducted in France and Flanders.

I may premise that I make no claim to originality of conception; my remarks are based rather on observation of a system which has gradually been evolved in practice.

As far as I am aware, consulting surgeons as such were first appointed in the South African war. They were placed in a position of great dignity and freedom, but were accorded no actual military rank in the regular service, although assigned the privileges of a Lieutenant-General and treated with great monetary liberality. Experience of the utility of the presence of consulting surgeons with the army was attained in that war, but when at a later date the Royal Army Medical Corps was reorganized, no definite rules and duties were laid down for them, and when the first consultants left to join the army in France in September, 1914, no more clearly defined duties had been assigned to them than before.

One primary step of importance was however made, in according temporary commissions with a rank only inferior to that of the Director of Medical Services, and the pay and allowances of a colonel in the Royal Army Medical Corps, and this principle was maintained, by promoting the seniors of the consultants to the rank of Surgeon-General when this rank was granted to the Ds.M.S. of the separate armies. The consultants therefore arrived in France with a suitable rank, with no fully defined duties, but considerable freedom of action.

I will summarize shortly the duties of the consulting surgeon as they were subsequently evolved.

1. *Consultation with the Medical Director-General or the Director of Medical Services of the army to which he was attached, on all matters concerned with the surgical treatment of patients.*

Although the consultant possesses no administrative position, there are numerous matters in the administration of the medical service in which he can take part with advantage. Thus he necessarily takes a prime interest in the question of location, construction, and the equipment of hospitals. In the late war the consulting surgeons were frequently called upon for advice regarding the arrangement and equipment of all the special departments of the hospitals, such as operating theatres, *x*-ray rooms, wards specially devoted to the treatment of fractures, etc.; and throughout the war a steady stand was made for the provision of huts or buildings in place of the marquees which proved so unsuited to the climate of the country and the form of warfare in which we were engaged.

The numerous demands made upon the administration for splints and apparatus, and the many varieties introduced as a result of the ingenuity of individual surgeons; the extended employment of *x*-ray outfits; the requisitions for surgical instruments altogether beyond the limits of those that had been considered sufficient to meet the requirements of military surgery; and the many devices originated for the general treatment of patients suffering from shock, the results of haemorrhage, or the acute infections, are only some of the many subjects which were fruitfully discussed between the consultants and the senior administrative officers.

2. *The nomination of medical officers to fill special surgical posts.*

The consulting surgeon possesses a more accurate knowledge upon which to base a judgement of the value of the records of men who have held civil appointments, and the nature of the work these appointments have involved; he has a far better opportunity of directly gauging the technical ability of the younger men, because he is constantly seeing them at work in the hospitals; and from the nature of his relations with the men he is often in a position to judge better than any one else of their fitness to occupy successfully any particular post.

A still more troublesome problem than the selection of individual surgeons is found in the maintenance of the efficiency of the units. The exigencies of military service and the casualties which occur amongst medical officers, often require that surgeons shall be suddenly transferred from one part of the line to another. Thus the efficiency of any particular unit may be imperilled; for officers fully familiar with their duties, with a knowledge of how far they can rely upon each other, and whose capabilities have been gauged by the officer in command are suddenly separated. The Director-General in France made an effort to reduce this difficulty by laying down a rule that the three senior surgical officers should not be transferred without the acquiescence of the consultant of the area. This to some extent met the difficulty, although hardly to the entire satisfaction of the consultant, for the consultant is naturally as anxious and jealous regarding the character of the work within his area as is the officer in command of the efficiency of his unit.

It is especially in these directions that the consulting surgeon comes into contact with the administrator, and it may be asked how their official relation should be defined. I consider the answer to be that these should be of mutual confidence and friendship. No sort of rivalry can be supposed to arise between these two sets of officers; their work and the sources of credit for it are both absolutely distinct, while a whole-hearted co-operation between them is the surest element in ensuring efficiency and success, as well as promoting the best interests of the patients. The example set by the Director-General of the Medical Services in France had a most happy influence in this respect, and the cases were few and far apart where jealousy or mistrust jeopardized the efficiency of the system.

In connexion with this subject the value of the meetings of the Director General, or of the Directors of Medical Services, as the case may be, with the consultants as a body, for the discussion of matters in which administrative detail bear closely on medical treatment or vice versa, and for the consideration of large questions affecting the general treatment of the patients, cannot be over-estimated.

3. *Co-ordination of the surgical work.*

In this direction great scope is afforded to the consultant. He visits numerous units and has some acquaintance with the methods adopted and the immediate results achieved at every stage upon the lines of communication, and he may do much to regularize and bring into conformity the work being carried on throughout the entire army. This is a most responsible duty, for on the one hand he must be careful not to obstruct advance, while on the other he must encourage the pioneer and yet strive to avoid unnecessary alterations of initial treatment to conform with the ideas, either advanced or retrograde, held by the medical officers under whose charge the patients may successively be placed.

On many subjects involving great principles, such as those of the treatment of wounds and the common infections, there can be no doubt of the influence for good

which the consultant can exercise. In special directions, also, he is in a position to encourage individual medical officers to devote their chief attention to any one class of case, or to any one form of treatment undergoing trial, and also ensure that a proper supply of material is assigned to him.

A word should perhaps be added on the delicate question to the nature of the advice to be proffered by the consultant to the individual medical officer. It is obvious that this must correspond with the capacity and experience of the medical officer concerned, and the conditions under which he is for the time working. In the main it should be such as the average surgeon is fully competent to profit by, and the ideal must be reserved in many cases for the man with a highly developed technique, and either special or long-standing experience behind him. In not a few cases mild measures or expectancy may be the safer course and more suitable, than one which would seem to hold out the promise of a more brilliant and rapid result.

4. *The diffusion of recent knowledge.*

Beyond drawing upon his own ability and experience, the consultant can bring under the notice of the medical officers of the large area recent discoveries and advances. This area may be more or less isolated in situation, but even within its own limits free intercourse between the different units may not be what is to be desired, and it may be found that a spirit of aloofness, similar to that which may separate two neighbouring hospitals and schools in a large city, or between the work of distant centres, exists. The desirability of diffusion may relate to general principles and broad lines of thought, but is especially marked in the application of small technical details. It is obvious that in this part of his duties the consultant must be careful not to establish a dead level, and thus interfere with the great advantage to be gained from the exercise of individuality on the part of the medical officers concerned.

The opportunity of diffusing knowledge is not, however, confined to the information which may be casually passed on during the daily round. The medical meeting affords another opening which the consultant cannot too sedulously make use of. To seniors and juniors alike these meetings and discussions are of the greatest value, and during the war many of the discussions recalled the time when the society meeting took the part in chronicling advance in medicine which has unhappily been largely transferred of late years to the custom of publication without the opportunity for free discussion of the questions dealt with.

On some occasions during the war a virgin subject came under consideration, and during my whole professional life I have never attended a meeting of such interest as that devoted to the subject of "poison gas," at which the results of the use of "drift" chlorine gas was first discussed. Each speaker dealt with a theme absolutely novel to his experience, and from direct personal observation alone, and for once a subject was available in which the possibility of tracing the course of cases from the beginning to their termination was present.

Opportunities also arise for the consultant to exercise still more directly his powers as a teacher. The exigencies of warfare necessitate the inclusion in the staff of any definite unit a number of young officers who have but recently entered the service, quite unfamiliar with the class of work they may have to undertake or of the conditions under which it may have to be performed. Under ordinary circumstances these new-comers could only gain the necessary experience by observation of the work of the officers with whom they were associated at a time of storm and stress particularly unsuitable for the impartation of individual instruction.

To meet this difficulty the Directors of Medical Services of the Armies set up schools of instruction, in which during periods of comparative quiet every officer was able to acquire familiarity with the methods employed. In connexion with these schools many of the consultants rendered valuable aid by delivering lectures, initiating discussions, and giving practical demonstrations.

At a later date similar schools were organized at the penultimate base, and the experience gained showed how valuable they would have been had it been possible to provide them at an earlier date, an ideal which the continuous shortage of medical officers had rendered impracticable.

5. *The initiation and co-ordination of research.*

From the purely clinical aspect the consultant has unusual opportunities of initiating or introducing methods of treatment, and exceptional advantages for observation of the results of their application, because it is within his power to arrange that a large number of cases should be placed under the charge of the same medical officer, and thus form an opinion as to how far any method is one only suited to employment by men of peculiar technical ability, or unsuitable except under ideal conditions.

In the late war, however, the consultant has been under far more favourable conditions than even these, since by the wisdom and foresight of those responsible for the working of the Medical Services, a number of workers in the different branches of pure science were also called in to take their part in the great task. Thus the consultant was in the happy position of possessing colleagues ready and anxious to do their best to solve any problem which might arise. These latter, moreover, were in unusually close relation with both medical officers and patients, and the association forms one of the most striking features of the campaign, and is responsible for a great part of such material advance as has been made.

Allocation of Consultants.

I may now turn to some matters more closely connected with the actual performance of the individual consultant's duties.

The first question which arises is, as to where he may most conveniently be located. Two methods of allocation are possible: in the one the consultants work upon concentric lines, one section being attached to the forward units; the other being attached to the hospitals on the lines of communication.

When the duties which have been briefly outlined are considered, the enormous importance of the consultant's function as a "liaison officer" becomes at once apparent, and for this part of the work no doubt can exist that the "radial system" possesses manifest advantage, and it may be added that by "the base" the general hospitals situated at the Channel ports in a war such as we are dealing with should not be meant, but the actual base hospitals in England. Only by acquainting himself with the work being carried on throughout the whole line can he become fully informed and thus render the service to his fellows that is expected from him.

In the recent war the radial system was not adopted in the British army, although it was by the French. The British consultants worked upon the concentric system, one section being confined in their duties to the forward units, the other to the units on the lines of communication. Thus a risk was incurred that no members of the service could become thoroughly conversant with the whole course taken by the cases. The disadvantages of the system were to some extent discounted in two ways: the consultants located with the hospitals at the Channel ports being allowed to make occasional visits to the front units, and in some cases consultants who had served at the general hospitals were afterwards transferred to duty with the armies. One great advantage did, however, obtain to the system, in that the consultant became personally acquainted with all the medical officers within his area, had unusual opportunities of close relationship and gaining the confidence of the administrative officers, and could secure permanent quarters.

Allowing that either system possesses advantages of its own, the difficulty might be satisfactorily met by adopting a slight variation in the method followed in the British army.

After the initial period of the war the two senior of the consulting surgeons were allotted a somewhat different position to the others, liaison duty being the chief feature of their work. If in place of retaining the concentric system these two officers had worked radially, each over a definite area, a more satisfactory result might have been attained, for it must be borne in mind that the information furnished by the liaison officer is not only as to results in general, but also as to those seen in any particular set of wounded men, and as they may be influenced by any special conditions of weather, difficulty of transport, etc.

On a far smaller scale in South Africa I had personal experience of the working of the radial system, and I am convinced that it is the superior if one system alone is to be relied upon; I also concluded from observation of the work of the French consultants that the system is the better of the two.

During the fighting of the Kimberley Relief Force I was with the field hospitals, witnessed and took part in the early treatment of all the wounded men brought in, saw and examined the whole of the patients who were passed down the line in the ambulance trains to Cape Town, and later went down to Cape Town myself, and was able to see the same patients and personally inform the medical officers under whose charge they had come of the earlier history of them all.

It may be said that this was an experience in a very limited field of action, but in the recent war I was in like manner impressed with the fact that the French consultants were able to follow batches of patients down the line, and personally observe the further course of individual patients.

Practical experience appears to demonstrate that a combination of the two systems may retain the advantages of both, the duties of one class of consultant approximating itself to that of a line of communication officer, while the duties of the other would be confined to the definite area or army assigned to them.

How far should the consultant be looked to for the actual performance of operations?

It is obvious that the consultant should be prepared to operate whenever this may be required; in some instances it may be advisable either on account of the importance of the particular patient, in others as a part of his duty in the regulation of the methods to be employed. On the other hand, if he makes a routine practice of operating freely, so much of his time is taken up that his more important duties may be restricted or interfered with.

Personally I found this to be the case in the early part of the war; it was easy to spend the whole day operating in a single unit, and find no time to visit the remainder.

A considerable difference in this respect exists between the duties to be performed by consultants working on the radial and concentric lines, should this distinction be adopted. The former would be principally concerned in the co-ordination of methods and equipment, and in the diffusion of information. The latter, working in a definite area, would no doubt feel that operative work formed a more important part of their function.

During the great war immense advantage was gained by the presence at an early stage of highly skilled surgeons with the army, capable of initiating new methods and variations of technical detail, and the service was fortunate in acquiring men specially competent in certain departments of surgery, such as those of the head, chest, abdomen, genito-urinary system, etc.

What part should the consultant take in the literary work produced?

This is a question of some difficulty. On the one hand we have a body of men peculiarly well fitted to undertake such work, while on the other the consultant holds a position of much delicacy because he is constantly engaged in watching a large number of the active younger men who are bearing the whole brunt of the work of the campaign; he becomes their confidant in the numerous daily consultations which take place, becomes thoroughly acquainted with their views and ideas, and consequently incurs considerable risk of being thought to make use of this experience for his own benefit.

Hence the consultant probably follows the best course in confining his output to some definite subject or subjects, and in the main to concentrate his efforts on exciting others to place their experience on record. In the recent war the consulting surgeons usually followed this course, with a consequent production of a number of valuable contributions to military surgery, and the only comprehensive work that was published was the result of a combined effort by the whole body.

This, the *Manual of Injuries and Diseases in War*, was drawn up by a method which attempted to reproduce the general trend of thought of surgeons working in France. A sketch outline was drawn up by one writer and submitted to every other member for emendation, addition, or excision, and the final result was then considered by the whole body sitting in committee. In this way a small manual was produced which, if unambitious and not exhaustive in scope, yet reflected general opinion on the subjects dealt with, and proved of definite use to the officers of the service.

A comprehensive military surgery from a single pen prepared in the light of recent experience, embodying the advances that have been made and their relation to older views and methods, is much to be desired; meanwhile, individual consultants are making themselves responsible for various chapters in the medical history of the war, in course of preparation under the auspices of the Medical Research Committee.

Mode of Choice of Consultants.

It is obvious that at the outbreak of any future war certain individuals will have been already earmarked to undertake these duties, but during the progress of any long-drawn-out campaign the number will have to be increased, and changes in the personnel will be necessary.

The majority of the consultants will probably always need to be recruited from the ranks of the civil profession, but there is every reason to encourage officers of the regular service to qualify for these posts. The possibility of holding them offers a great inducement to officers of the regular service to continue to give their main attention to strictly medical work; and, if suitable rearrangement be made, an escape would be possible from the unsatisfactory conditions under which administrative work offers the only road to the highest positions in the service.

With regard to the choice of consultants during the continuance of a campaign, in the recent war the promotion of junior officers who had gained their experience by practical work in the military hospitals proved a great success, and this mode of choice is not only an inducement to capable men to undertake the duty of surgical specialist, but has obvious advantages over the introduction of men who have had experience of civil work alone, however good their professional status.

In making use of this second method of selection, however, the value of the presence with the army of consultants connected with the hospitals and medical schools at home must not be lost sight of. It is to men emanating from this source that the profession must look for the introduction into military surgery of recent improvements in civil work, and again for the introduction into the surgery of civil life of the experience gained as a result of work in the field. Putting purely scientific questions on one side, the acquaintance of the civilian with the many problems of military administration and the manner in which they may be solved will doubtless prove of great advantage in the future. The necessity for thought and prompt action in the provision of the requirements for the performance of successful work under difficulties, and the experience that these necessities will not be forthcoming unless the surgeon bestirs himself to ensure their presence, form a lesson which the civil surgeon accustomed to expect everything found for him almost automatically has surely taken to heart.

What part may the consultant play in strengthening the bond established by participation in a common science between the nations of the world?

Can it be said that science forms a bond between men of different nations strong enough to withstand the forces set free by the outbreak of a war between them? Recent experience has gone far to falsify the utterances with which international congresses have made us familiar. Not only do societies and corporations disclaim connexion with those of enemy states, but individuals also combine in taking similar action.

Yet the bond had seemed a reality, fostered and strengthened by mutual work in foreign schools and laboratories, international meetings held with both scientific and social aims, the diffusion of abstracts of work done in other countries, and perhaps the most important of all, the incorporation in scientific publication of the results obtained by workers in all countries, which have, for instance, made the name of Lister and of Virchow as familiar to the surgeons of each country as if its bearer had belonged to either.

Unfortunately the fact that the great war has found the men of literature and of science amongst the most active and polemical writers on either side, goes to show that the highest grade of mental cultivation has little influence on the elemental characters of man's nature. Thus while the Central Powers have gone so far as to strive to prevent their medical literature reaching their enemies' hands, the conditions of war have furthered a most intimate association between the medical services of the armies allied in the same cause. Not only has a brotherly alliance existed, unbroken throughout by any national jealousy, but the same lines of thought and the same tide of action and reaction in practice has been observable in all. The reports of the Inter-Allied Conference on the Treatment of Wounds furnish an excellent illustration of these facts.

Amongst the surgeons of the allied nations an increased spirit of fraternity and intimate co-operation has certainly flourished. Just as the armies of the different states have placed their resources of every kind at the disposal of each other, so the workers in medical science have pooled their knowledge and growing experience, and readily received and adopted variations or advances from whatever source they might emanate.

Those who were privileged to take part in the recent campaign will at once recognize that although omissions have no doubt been made in sketching this outline of the duties of the consulting surgeon, yet it embodies in the main what has been the practice in the British army, and a system which has been appreciated and even imitated in the armies of our allies. Still, as far as I am aware, the system remains founded upon usage during the war; it has resulted from a process of development in successive steps, and it is no doubt capable of further regularization and organization.

Conclusion.

The authoritative pronouncement of Sir Alfred Keogh in the *British Journal of Surgery* (vol. iv, No. 13, pp. 3–4, 1916) affords sufficient grounds to absolve me of any intention of wishing to magnify the office of the consultant, either at the expense of the regular service or of the splendid body of men for whom the nation was in the main part indebted for the hard work of the campaign. It should be realized, however, that the position assigned to the consultant with the army corresponds in dignity and importance with that of the professor in a Medical Faculty, and his power of influencing the whole character of the work is equally great. We cannot doubt that the experience gained will be utilized by clearly defining what the status and duties of the consultant will be in the future, but I would submit that these should be laid down while the facts that should decide them are still fresh in the minds of the powers that govern the Army Medical Service.

It is much to be desired that the principle introduced in 1903 of inviting civil consultants to form a part of the staff of the military hospital at Millbank should undergo further development, and be but a step towards the permanent association of civil practitioners with the work of the military hospitals throughout the service. Thus a connexion between the two branches of the profession in times of peace would be established which could not fail to simplify and render more efficient the change which must follow mobilization in the case of any war of magnitude.

These remarks upon the duties of the consulting surgeon cannot be closed without allusion, however brief, to the charms and pleasures of the position. For the first time in his professional career he attains an opportunity of practising surgery for the sake of surgery alone, a position which many a man with the responsibilities of the civil practitioner has longed for as the impracticable ideal. A routine occupation is suddenly transformed into a free and varied existence, with periods of strenuous work, it is true, but also others in which abundant opportunity is found to ponder over the many interesting problems which arise, and, moreover, a wealth of material which allows the acquisition of a practical experience which many years of civil practice would not suffice to acquire.

Lastly, the favourable conditions which are afforded of cultivating a close relationship with colleagues. Happy as the association of the consultant may be with those with whom he works in civil life, they cannot approach the free intercourse of mind with mind which obtains in life in the field. Freedom of discussion, the constant sharpening of wits in encounters with young and ardent workers eager to assume the position of the pioneer, the social life and the charm of entering on equal terms a society such as brings back memories of youthful days, are but some of the pleasures only to be fully appreciated by those who have enjoyed the privilege of experiencing them.

No less happy are the somewhat novel relations which establish themselves between the consultants, and between the consultants and the officers of the regular service, which it is to be hoped form a presage of the future, a continuing co-partnership founded upon a common aim and mutual appreciation.

THE OPERATIVE TREATMENT OF SIMPLE ENLARGEMENTS AND TUMOURS OF THE THYROID GLAND.

BY

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In this paper it is intended to consider the surgical treatment of certain simple enlargements of the thyroid gland by a review of fifty cases. Under the heading of simple enlargement the following types of case are included: (*a*) Colloid goitre, (*b*) diffuse adenoma; (*c*) encapsuled adenoma and cysts; (*d*) inflammatory conditions. Malignant disease and exophthalmic goitre are excluded from the cases under review.

A. COLLOID GOITRE.

This term is used in preference to parenchymatous goitre since histologically the most marked change is increase of colloid with distension of the vesicles. Clinically in early cases the gland shows a diffuse enlargement which is usually symmetrical; the surface of the gland is smooth, and the consistency is soft. In old-standing cases the surface is nodular, and the gland, as a result of fibrosis, is firmer in consistency; differentiation, both clinically and microscopically, from diffuse adenoma may be a matter of considerable difficulty; for this reason only the early "soft" cases are considered under this heading, the more advanced cases being grouped with the diffuse adenomata. A very large proportion of the early cases, where no fibrosis has occurred, are amenable to medical treatment; my usual plan is to give iodine internally, in the form of pil. iodoformi gr. ½ t.d.s.; in many cases regulation of the bowels by means of liquid paraffin is essential, and intestinal antiseptics are often of value. Operation is rarely necessary, and should only be performed for definite symptoms or severe deformity. The symptoms most commonly complained of are due to pressure on or dislocation of the trachea, a condition which is most likely to obtain if the goitre is asymmetrical or partly intrathoracic. Occasionally dysphagia may be a prominent symptom; in one particular case a tongue of thyroid tissue was found passing between the trachea and oesophagus on the right side; removal of the right lobe gave complete relief.

Operations for cosmetic reasons require careful consideration and should only be performed if the deformity is severe and after a prolonged course of medical treatment; in this series I have performed an extirpation for this reason on three occasions only (one male and two female cases). In each case the patient was a servant and could not obtain employment owing to the disfigurement. In two cases the complete thyroid was extirpated with the exception of a small stump at each lower pole; in the third case the left lobe alone was removed as it was more than twice the size of the right lobe.

GROUP A.—*Colloid Goitre.*

Total operations (males 2, females 5)	7
Complete extirpation	4
Hemithyroidectomy	3
For dyspnoea	3
For dysphagia	1
For disfigurement	3

Average age 18; oldest 27, youngest 14.
Mortality *nil.*

B. Diffuse Adenoma.

The pathology of this condition is a little obscure; some cases are definitely due to the presence of multiple small cystadenomata with little or no capsule to the growths, others appear to be the result of fibrosis in a colloid goitre. (See above under colloid goitre.)

Clinically in this condition the thyroid is firmer in consistency than normally and is irregular and nodular on palpation.

The symptoms are nearly always those of dyspnoea—especially occurring at night and on exertion; very marked dyspnoea with stridor was present in several of the cases under review. The respiratory embarrassment is almost always due to flattening of the trachea by lateral compression together with displacement to one side causing kinking. The enlargement was commonly bilateral but asymmetrical, one lobe being considerably larger than the other. A tongue of thyroid tissue running up to the lower jaw was noted in several cases, necessitating a departure from the usual transverse collar incision.

In my earlier cases the isthmus and the larger lobe alone were removed; some shrinkage of the remaining lobe often followed, but this was by no means invariable, and on two occasions a second operation, two years and four years later respectively, was necessary. It was also observed that the removal of one lobe was liable to be followed by dislocation of the trachea with dyspnoea; this was so marked in one case that an immediate complete extirpation was necessitated, urgent dyspnoea resulting immediately after the removal of one lobe. For these reasons it is now my practice to remove the entire thyroid with the exception of a small stump of tissue at the lower poles; no ill results have been observed from this operation.

Goitres of this type tend to grow to a very large size; no palliative treatment will give any relief—operation is therefore justifiable if the enlargement is marked, even if no symptoms are present.

Group B.—*Diffuse Adenoma.*

Total cases (males 3, females 6) ...	... 9
Total extirpation	... 5
Hemithyroidectomy	... 4
Urgent dyspnoea	... 4

Average age 25; oldest 38, youngest 16.
Mortality *nil*.

C. Encapsuled Cysts and Solid Adenomata.

This type forms the most frequent class of case operated on—that is, 32 out of the 50 cases under discussion. Cysts are not infrequently multiple; they may grow to a very large size—in one instance a single cyst had reached the size of a croquet ball, completely filling the space between the point of the chin and the top of the sternum; it was easily enucleated with practically no haemorrhage.

Solid adenomata were met with in 5 cases; histologically these appear to be derived from fetal thyroid tissue, showing masses of cuboidal cells with attempted vesicle formation in places. It was noteworthy that the enucleation of these tumours was likely to be followed by severe haemorrhage from large vessels piercing the capsule of the tumour; for this reason it is now my practice to treat this type of case by extirpation of the affected lobe or portion of the gland rather than by enucleation of the tumour. Single cystadenomata can usually be enucleated with little difficulty or danger, provided the precautions noted in the description of the operation given below are carried out. Multiple cysts are usually best treated by extirpation of the affected lobe.

The usual symptoms are those of dyspnoea; pain or dysphagia may be complained of, but the latter symptoms are rare. Even if no symptoms are present operation is always advisable in these cases if the tumour is of any size, and particularly if it is situated in the isthmus; operation is always urged if the tumour is low down and tending to become retrosternal.

A history of rapid increase in size of the tumour with exacerbation of symptoms was present in five cases. In one the operation had to be performed as an emergency owing to acute dyspnoea; the rapid increase was due to haemorrhage into the cyst in every case.

Serious obstruction to respiration may occur during anaesthesia, and one dramatic case of this nature is worthy of a detailed description.

Case 37.—A girl, aged 18, was admitted into hospital with three cysts in the thyroid—one the size of a plum in the right lobe, one the size of a walnut in the isthmus and reaching down to the top of the sternum, and one quite small in size in the left lobe. There was marked dyspnoea on the least exertion, with orthopnoea at night. The anaesthetic (open ether preceded by omnopon, scopolamine, and atropine) was administered by Dr. Blomfield. About five minutes after induction had commenced urgent dyspnoea set in, and the patient became deeply cyanosed. Thinking that the cyst in the isthmus was the cause of the difficulty I made a median vertical incision and rapidly enucleated the cyst, dividing the isthmus at the same time. Some relief was obtained, but this was by no means complete; further investigation revealed another cyst the size of a golf ball behind the sternum, and apparently connected with the left lateral lobe; this was shelled out, with complete relief of the respiratory embarrassment, so much so that it was possible to continue the operation and enucleate the remaining cysts.

The most difficult and dangerous type of case is where the cyst is partly or completely retrosternal; the symptoms are much more severe, and stridor may be marked. Any intercurrent respiratory disease may easily be fatal in such cases, and sudden death from suffocation occurred in one patient as a result of haemorrhage into the cyst before any operation could be performed.

Group C.—*Encapsuled Cysts and Solid Adenomata.*

Total operations (males 4, females 28) ...	... 32
Treated by enucleation	... 20
Treated by extirpation of the affected lobe	... 12
Retrosternal cysts (partial or complete)	... 9

Average age 34; youngest 16, oldest 58.
Mortality *nil*.

D. Inflammatory Affections.

Inflammation of the thyroid is not common and suppuration within the gland is even more rare. Three cases of abscess in the gland have come under my care; the first was in a boy, aged 9, as a sequela of measles; the abscess was situated in the isthmus and was causing considerable dysphagia and some dyspnoea—drainage of the abscess, in which a staphylococcus was isolated, gave complete relief. The second case occurred during convalescence from a perforated gastric ulcer; a small abscess formed in the right lobe; this was drained and it rapidly healed—unfortunately the pus was not examined. The last case occurred in a man suffering from septicaemia, the result of a gunshot wound of the thigh. Death resulted in this case from oedema of the larynx before any operation could be performed.

Notes on the Operations.

The anaesthetic has rightly been considered one of the chief dangers in thyroid operations, and for this reason local anaesthesia has been advocated by many surgeons. Personally, I have always been fortunate in having the assistance of highly skilled anaesthetists, and all my cases have been operated on under general inhalation anaesthesia. The usual routine is as follows: Three-quarters of an hour before the operation 1 c.cm. of omnopon and scopolamine and $\frac{1}{100}$ gr. of atropine are given hypodermically; the patient's ears are then plugged with cotton-wool, and they are encouraged to go to sleep—this is often so effective that they have no recollection of being moved from the ward to the theatre. The anaesthetic given was in practically every case open ether by the drop method or warm through a Shipway apparatus; in a few cases a small amount of C_2E_2 was required during the induction. Induction is always slow, as the respiration rate is reduced as a result of the preliminary injection. Anaesthesia should be comparatively light throughout, so that the patient rapidly returns to consciousness after the operation.

The Incision.—In the majority of these cases the low transverse collar incision was found the most suitable, giving good access, and, if carefully sutured, a very good scar; the only variations I now make are (*a*) in small cysts or adenomata of the isthmus, which are often more accessible through a median vertical incision, and (*b*) where the goitre is large and there is an extensive prolongation upwards towards the angle of the jaw. In such cases the outer portion of the incision requires to be curved upwards in order to avoid excessive dragging and manipulation in delivering the upper pole. The incision should in all cases be free, so as to avoid the necessity of strong retraction; superficial veins should be clipped and ligatured as soon as exposed, so as to avoid too large a number of clips around the wound.

The sterno-hyoid and sterno-thyroid muscles, which are commonly greatly thinned and stretched, can readily be retracted inwards or outwards; there need, however, be no hesitation in dividing them if additional room is required; division of the sterno-mastoid is never necessary. The fascia over the gland is next cleared, the veins in it being at once picked up and ligatured. The gland in its capsule is then isolated and the upper and lower pedicles are identified and freely exposed. This step is essential whether an enucleation or an extirpation is contemplated; if the gland has been thoroughly freed, the enucleation of cysts is easier, and, further, haemorrhage may be readily checked by extroversion of the cavity remaining after enucleation by means of a finger inserted behind the gland.

In an *enucleation* the true capsule of the gland is incised, all bleeding points being clamped and ligatured at once; the gland tissue is then divided over the cyst and the tumour is enucleated by gentle finger dissection. After enucleation, a gauze plug inserted into the cavity for a few minutes will usually check all haemorrhage. Failing this, the manœuvre described above is of value.

Retrosternal cysts often present grave difficulties from their situation and anatomical relations; the best plan to adopt is to clear the upper part of the cyst as far as possible and then to commence the enucleation from below and behind—that is, away from the inferior thyroid and innominate veins. During the necessary manipulations it is advisable to keep the head raised so as to relax the trachea.

In *extirpation* it is most convenient to commence by exposing and ligaturing the vessels entering the upper pole of the gland; the middle thyroid veins are then clamped and divided and the gland is turned downwards and inwards so as to expose the inferior pedicle; this is ligatured *through* thyroid tissue so as to avoid possible injury to the recurrent laryngeal nerve and to leave a small amount of tissue if the whole gland is extirpated.

In cases of hemithyroidectomy I have usually found it best to remove the entire isthmus, any bleeding from the point of division being checked by means of a figure-of-eight stitch of fine catgut. The isthmus may be very adherent to the trachea, especially in old-standing cases or in cases which have been treated by *x* rays, and considerable care is necessary to avoid injury to the trachea, an accident which occurred in one of my cases which had had extensive *x*-ray treatment elsewhere; in this case a small slit was made in the trachea, this was sutured with fine catgut with no untoward result. In complete extirpation each lobe is dealt with separately, the isthmus being left undivided so that the gland may be removed entire.

Drainage is required in all cases so as to avoid the formation of a haematoma, as a certain amount of oozing is inevitable even with the most careful haemostasis. Haematomas, in addition to the prejudicial effect on healing, may cause dangerous respiratory embarrassment from pressure on or kinking of the trachea. Experience of all methods of drainage has convinced me that the best drain is a $\frac{3}{8}$ in. soft walled rubber tube with one side perforation near the end. Drainage is maintained for twenty-four to forty-eight hours.

Suture of the incision should be in layers—that is, platysma and skin separately. The platysma is drawn together by a continuous suture of fine soft catgut, interrupted at the point of drainage; for the skin I now use interrupted fine fishing gut stitches in preference to any other method. At the point of entry of the drainage tube two separate fishing gut stitches are inserted; these are left untied, and traverse the skin and platysma obliquely, so that more of the platysma is taken up than skin; they are tied the day after removal of the tube, and with a little manipulation perfect apposition of the skin edges is possible. Stitches are removed on the fourth day, with the exception of those at the point of drainage, which are left to the sixth day. The majority of the patients were up on the fifth day and left hospital on the eighth to tenth day.

Dressing.—A very abundant gauze dressing should be used in the first instance to soak up any oozing from the wound; over this a pad of wool is applied, and the whole is fixed by means of a double figure-of-eight bandage. In order to prevent the wound being infected by any vomited material the upper edge of the dressing should be sealed down by means of collodion.

After-Treatment.—After the first few hours the most comfortable position for the patient is sitting up supported by a number of pillows. Feeding should be by fluids only for the first two days, after which time ordinary diet may be gradually resumed.

Complications and Sequelae.

Severe *bronchitis* ensued in three of the cases; this delayed convalescence, but left no permanent ill effects—it was in all probability due to the omission of the preliminary atropine injection in at least one case.

Wound haematoma occurred in four cases, fortunately without ill effect other than delayed healing; this was due to the use of too small a drainage tube.

A persistent *mucous fistula*, after the enucleation of a cyst, occurred once. This lasted for three weeks, and was probably due to a mild degree of sepsis.

CASES RESEMBLING ENCEPHALITIS LETHARGICA

OCCURRING DURING THE INFLUENZA EPIDEMIC.

BY

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THE report on two cases of encephalitis lethargica by Brasher, Caldwell, and Coombe in this JOURNAL (June 14th, p. 733) leads me to place on record the following notes, which I wrote, but did not publish, during the influenza epidemic in France in 1918 and early in 1919, because the cases coincide in many points clinically with those reported by them. My object is to emphasize the possible relation between the two obscure conditions—"encephalitis lethargica" and the "influenza" of last winter.

In that epidemic of influenza many cases presenting cerebral symptoms were recorded. These symptoms usually took the form of drowsiness, delirium, melancholia, and, in rare cases, mania. Cases showing such mental disturbances together with transient paresis of groups of muscles have not, as far as I know, been recorded in association with influenza.

In a report made to the Local Government Board in 1918, on an obscure disease to which the name encephalitis lethargica was given, many cases resembling the ones I detail below were described. They differed, however, from them in certain points—namely: (1) The onset, which was more gradual in my series; (2) the short duration with complete recovery in all of my cases; (3) the ophthalmoplegia with marked ptosis, which was a constant feature in the cases of encephalitis lethargica, was not marked in my series.

Marinesco in a few cases observed a diplococcus in the foci of cerebral inflammation, or in their neighbourhood, but himself admitted that these observations required confirmation.

For purposes of comparison with the cases which I describe below I briefly set down here a few of the symptoms met with in encephalitis lethargica:

Early stage: Slight malaise, with increase in temperature, headache, and drowsiness.

Later stage: Lethargy—sometimes going on to complete mental stupor—paresis of muscles or group of muscles, ophthalmoplegia, ptosis, facial palsy. In some cases third or fifth nerve involvement, together with involvement of peripheral nerves—polyneuritis type.

The main feature in these cases, and the one common to all the cases, was lethargy, and there were always associated with it other nervous manifestations—namely, third nerve involvement, fifth nerve involvement, or polyneuritis.

The close anatomical association of the efferent nerve fibres bringing environmental impulses to the thalamus with the nucleus of the third nerve and its emergent fibres would explain how any lesion in or around that region would produce probably also a cutting off of these environmental impulses and result in a state of stupor, as well as ophthalmoplegia, and other third nerve involvement noted in these cases. The cases of facial paralysis and other nervous manifestations associated with stupor, but not showing any third nerve paralysis, suggest a lesion near but not actually in the nucleus itself, together with other lesions generally in the nervous system—for example, the pons or spinal cord.

Histologically it was shown by Marinesco that the lesions were of an inflammatory nature, and were characterized by adventitial infiltration of the small vessels, particularly the venules, by plasma cells and lymphocytes.

The five following cases occurring about the same time, and during the period of the influenza epidemic in France, are similar in many respects clinically to the case of encephalitis lethargica reported in 1918.

CASE I.

Pte. W.; admitted to hospital on January 5th, 1919. Onset of illness on December 28th, 1918. History of acute onset; malaise, general pains, headache. Temperature about 100° F.

On admission the chief symptoms were mental dullness, slow cerebration, twitchings of both arms and legs. Slight facial paresis on the left side. Pupils dilated; fundi showed engorgement of retinal veins; *tache cérébrale*; no retraction of head, no Kernig's sign, no pyrexia.

January 15th. Condition improving: facial paralysis gone; mental condition better; cerebration quicker.

January 17th. Condition still improving. He was evacuated to the United Kingdom on January 22nd.

CASE II.

Cpl. J.; admitted January 5th, 1919. Onset of illness December 29th, 1918. First complaint was headache, pain in eyes, diplopia and defective vision in left eye; irregular pyrexia.

On admission he was dull mentally, resented being touched, cerebration was very slow; he answered questions slowly but intelligently. The pupils were dilated, but equal, slight internal squint (L.), and left facial paralysis. Slight choked left optic disc. Marked vertical nystagmus present. No history of ear trouble. No specific history obtained. No head retraction; no Kernig's sign; *tache cérébrale* present; deep reflexes increased.

January 7th. Improving. Mentally better; sees better—still has slight diplopia and vertical nystagmus.

January 11th. A few rhonchi in chest. Mild pyrexia otherwise better. Facial paralysis less marked.

January 17th. Facial paralysis gone; great improvement mentally. Temperature normal and lungs clear. Diplopia and vertical nystagmus still persists.

January 24th. Improving; still in hospital.

CASE III.

Pte. R.; admitted January 7th, 1919. Onset of illness January 2nd. Headache and pains in back; eyes tender, complains of difficulty in seeing; vomited once; no facial paralysis. On admission he was dull mentally, resisted when touched; cerebration was slow; the pupils were dilated and there was some conjunctival suffusion; fundi showed fullness of retinal veins and some obscuring of optic disc margins. Neither retraction of head nor Kernig's sign was present; the knee jerks were exaggerated, and the plantar reflexes of flexor type. Slight facial paresis (L.). He had attacks of intense drowsiness lasting about an hour in which he could not be roused.

January 18th. Condition improving: sees better, headache less; much brighter; temperature normal.

CASE IV.

Pte. J.; admitted January 7th, 1919. Onset of illness December 21st, 1918. Pain in head and back, cough and some abdominal discomfort; complained of tenderness of eyes. On admission there was no pyrexia; he was dull mentally, listless, and not inclined to answer questions. He complained of headache and eye pains; the pupils were widely dilated; the fundi showed fullness of retinal veins, but the optic discs appeared normal; slight facial paresis left side. A few crepitations and moist sounds throughout both lungs.

January 15th. Much brighter mentally; facial paresis gone; pupils still dilated, but no headache or eye pain complained of. Temperature normal.

January 20th. Appears quite normal. Chest clear.

CASE V.

Cpl. R.; admitted January 7th, 1919. Onset of illness December 11th, 1918. He had severe headache and quickly became unconscious. The pupils were unequal, the right larger than the left. Some weakening of left arm and leg. Incontinent.

On admission he was fully conscious, but very dull mentally. He complained of pain in head and both eyes; the pupils were equal and reacted to light and accommodation. The fundi showed marked fullness of retinal veins and obscuring of the margin of the optic discs. There was paresis of the left side of face, and weakening of the grip of the left hand. Deep reflexes were obtained; plantar reflexes of flexor type. Kernig's sign not present; *tache cérébrale* marked. Lumbar puncture: clear fluid obtained under increased pressure. Cell count 200 per c.mm., chiefly lymphocytes. No growth on legumen agar after forty-eight hours. Growth on blood smeared agar of a small Gram-negative bacillus. Small Gram-positive diplococci were present also. Leucocyte count, 9,500; lymphocytes and polymorphs in usual proportions.

January 17th. Condition improving; facial paresis still persists. Much brighter mentally; answers questions sensibly, but cerebration still slow.

January 20th. General condition improved, facial paresis almost gone. Much brighter mentally.

January 25th. Still in hospital; improving.

In addition to these, three other cases diagnosed clinically as influenza developed well marked unilateral wrist-drop. Another presented definite peripheral neuritis affecting both arms and legs, while in a fifth case there occurred during the influenzal attack a paralysis of the muscles of the upper parts of the pharynx.

All these cases, as in the first five, were marked by mental lethargy. As all recovered nothing is known regarding the actual anatomical lesion which produced the nervous phenomena, but it seems possible that it did not differ greatly from the lesion found in the cases of encephalitis lethargica.

The question which has still to be decided is, What is the nature of the infection?

A CASE OF HYDROPHOBIA EIGHTEEN MONTHS AFTER INFECTION.

BY

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COLONEL I.M.S. (R.).

IN 1885, when I was Civil Surgeon of Mussoorie, a case of hydrophobia came under my care which made a great impression upon my mind, partly owing to the distressing circumstances which attended so acute a case, partly because I was constantly at the bedside of the patient, and partly because I was able to ascertain that the bite by a rabid dog to which the disease must be attributed had been inflicted eighteen months before the disease developed. The notes of the case were published in an appendix to the annual report of the Army Medical Department for 1884, but in the circumstances of to-day I feel justified in reproducing the story since that publication is not generally available.

The patient was a lieutenant in a Bengal cavalry regiment, aged 24. I was called to see him at 6.30 p.m. on September 27th, because, as he thought, he had been suffering from fever for the previous two or three days. The temperature was normal, the pulse somewhat rapid and weak; he was bathed in cold perspiration, and seemed nervous and depressed. He stated that he had had fever during the whole of the day, and that he was then in the sweating stage; from the general symptoms I had no reason to suspect otherwise, but there was one symptom I noticed at the time as peculiar. Whilst I was speaking to him he suddenly sat up on the couch on which he was lying and complained of a peculiar sensation as if the upper part of his chest was being compressed. I examined the lungs and heart and found them normal, and concluded that the sensation complained of was due to some cerebro-spinal irritation, such as one sometimes meets with in malarial fevers. He also complained of sleeplessness. He made light of his illness, and stated that it was only in deference to his wife's wish that he had allowed me to be sent for. I prescribed the usual remedies for intermittent fever. He had some quinine pills by him, each containing three grains, and I saw him take two of these. He swallowed them dry, not using any liquid to wash them down. I remember his remarking that he preferred taking them without any fluid. There was then no difficulty in swallowing the pills.

At 5 next morning I had the following note from Mr. T.: "It has just occurred to me that I may have hydrophobia, as I cannot touch water. I was bitten by a mad pup about two and a half years ago at Agra, in the right hand. My right arm pained me a few days ago for no apparent reason." When I saw him half an hour later he was suffering from all the symptoms of well marked hydrophobia. He was lying in bed, bathed in cold clammy perspiration. He was extremely depressed and very restless. The pulse was very weak and rapid. The eyes were sunken, wild, and unnatural. Anxiety, distress, excitement, and terror were depicted on his countenance. He was extremely nervous, disturbed by any sound or movement. The characteristic paroxysms of laryngeal spasm were well marked, and recurred frequently. They set in with a shivering of the body, which gradually increased in intensity, till the whole frame became violently agitated. He sprung suddenly from the lying into the sitting position, with the head bent on the chest, gasping for breath and foaming at the mouth, or he clutched the bed-head rail and struggled violently with the spasm. He spat out viscid mucus, which accumulated in the throat and mouth. The spasms were accompanied by the peculiar dry, hoarse, sonorous cough which is popularly regarded as resembling the barking of a dog, but to which it has no real resemblance. It is produced by the attempt to get rid of the accumulated mucus in the throat by coughing. All the above symptoms gradually increased in intensity till they reached a climax that was distressing to behold; then they gradually subsided, till the patient fell back in bed exhausted, trembling, and bathed in perspiration.

These paroxysms of suffocation were produced by any attempt to swallow either food or drink; even the suggestion

that he should swallow anything was sufficient to bring them on; and he therefore entreated that no attempts to make him swallow medicine should be made, as they would be both useless and injurious. The paroxysms were induced by various external influences, such as the sight or sound of water, any sudden movement of persons in the room, the rustling of a dress, the creaking of boots, the opening or shutting of a door, a current of air, or rays of light. For instance, as the sun rose in the morning the rays of bright light suddenly passed into the room, through a skylight, and this was sufficient to induce a spasm. Again, he heard the noise of the *bhisti* (water carrier) pouring water from his *mushuck* (water bag) outside, and this brought on a violent paroxysm. On one occasion he complained of a desire to pass urine, but when the chamber utensil was brought to him he was unable to micturate, and a paroxysm was induced. He subsequently passed urine involuntarily. The paroxysms of suffocation also came on spontaneously. He could not bear anyone to approach the bed in which he was lying. It was with the greatest difficulty I managed to feel his pulse and administer medicines hypodermically. The fearful paroxysms of suffocation, accompanied, as they were, by the sudden springing up in bed, were sufficient to unnerve the strongest man, and would, to the unprofessional mind, give the impression that the patient was a violent maniac. But there was no violence exhibited. The patient was rational till shortly before his death. He spoke sensibly about his affairs, recognized the fact that there was no prospect of his recovery, and met his fate with fortitude. There was no delirium or incoherence. He repeatedly assured me that there was no actual pain, merely the distressing symptoms connected with the disease.

He spoke about his case; he said that two and a half years ago he, amongst others, had been bitten by a pup which subsequently died mad. I afterwards ascertained that the period was one and a half, not two and a half years. The wounds were not cauterized at the time, as the pup was not supposed to be mad. For some time after he had a dread of hydrophobia, but latterly, for months, the idea had completely vanished from his mind. He now remembered that the present attack had commenced three days before with pain in the thumb and forefinger that had been bitten. He said to his wife at the time that he could not hold his pen. This pain passed up the arm and fixed itself in the right shoulder for a time, and there was numbness of the whole right upper limb; this he thought was merely rheumatism. These symptoms were followed by slight fever, with lassitude, weakness, and distaste for food and drink. But it was not till the early morning of the day on which he died that the awful reality flashed through his mind, when he found that he could not swallow fluids.

The paroxysms, already described, at first increased in frequency and violence, each leaving him more and more exhausted; but about noon they began to diminish in frequency and force, and he died of exhaustion at about 5 p.m.

I had the advantage of seeing several medical officers in consultation during the course of the day. They all recognized the hopeless state of the patient. It is only when placed face to face with a case of this dire disease that one recognizes the inutility of any drug to stay its fearful course. During the day hypodermic injections of morphine in doses of ½ to ⅓ grain were administered every two hours or so, and to one dose was added $\frac{1}{60}$ grain of atropine. These had the effect of greatly calming the nervous symptoms and allaying the violence of the spasms.

This case involves several points of interest:

1. The unusual length of the period of incubation. From inquiries I made it was established that he was bitten at Agra in the end of March, 1884. This is clear from the statements of his connexions, and that of an officer of the 29th Native Infantry, to which regiment he then belonged. The period of incubation was therefore one and a half years; the ordinary period of incubation in this disease varies from three to six weeks, and authors distrust the accuracy of statements in cases when the disease is alleged to have occurred at lengthened periods after a bite from a rabid animal has been contracted, and think that the disease is confounded with tetanus and other nervous diseases which have some resemblance to hydrophobia.

2. That this was an undoubted case of hydrophobia, however, there can be no question. I have seen several cases of hydrophobia myself; and all the medical officers that saw this case had no hesitation in at once pronouncing it hydrophobia. Indeed, not one typical symptom of that fearful disease was absent.

3. It is sometimes argued that nervous symptoms resembling those of hydrophobia may be induced by fear after a person has been bitten by a rabid animal, and that these symptoms may actually prove fatal through the shock to the nervous system. No such argument can apply in this instance. The history of the case shows that all fear of hydrophobia supervening had passed away, and that the patient had for three days been suffering from the premonitory symptoms of the disease without any suspicion of its existence entering his mind. It is with a view to make this point clear that I have sketched the history of the case in a somewhat irregular fashion, and not in accordance with the natural sequence of the symptoms.

4. The most important point, however, connected with the case is, fortunately, of a practical nature, and one to which I desire to call especial attention. The history tends undoubtedly to prove that the poison received from the bite of a rabid animal does not, as in the case of snake poisoning, rapidly invade the system, but remains localized at the seat of injury for an indeterminate period; and, maturing there by some peculiar process, suddenly, after the lapse of days, weeks, months, or years, invades the system. On no other theory can we explain the fact that the first symptom in the actual development of the disease was pain in the seat of the bite. The fact that the patient had no suspicion as to the nature of the pain or of the premonitory symptoms, that he did not recognize the fact that he was suffering from hydrophobia till the symptoms were fully developed, is of very great importance; otherwise it might be argued that the pain was the result of imagination.

The history of this case goes to prove that the poison remains localized for a period which varies in different individuals. If this theory be correct the practical lesson is that free removal or free destruction of the part bitten, by excision or caustics or both, should be had recourse to. For this purpose when a person has been bitten by a rabid animal the fleshy parts around the bite should be excised freely as soon as possible, care being taken that the excision should extend beyond the parts touched by the teeth of the animal. Should a surgeon not be at hand, lunar caustic, a live coal, or a hot iron should be freely applied to the parts so as to destroy the tissues around the bite. In all cases of bites from animals, even when no suspicion of rabies exists, cauterization should be had recourse to. Should these precautions not have been adopted at the time or soon after the bite, the cicatrix and surrounding tissues should be excised subsequently, should it be known or suspected that the animal had been suffering from hydrophobia. I believe there are sufficient reasons to suppose that had such excision been had recourse to in the case under review, even shortly before the active symptoms set in, the disease would never have developed itself. The lessons taught by this and similar cases should be brought home to the multitude. I believe if the measures proposed (which are not new) were more generally adopted, saving of life would result. When once the active symptoms of the disease are developed the result is necessarily fatal.

Croonian Lectures

ON

THE SIGNIFICANCE OF THE CEREBRAL CORTEX.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON, JUNE, 1919.

BY

G. ELLIOT SMITH, M.A., M.D., F.R.C.P., F.R.S.

PROFESSOR OF ANATOMY, UNIVERSITY OF MANCHESTER.

LECTURES II AND III.

(Abstract.)

IN the primitive vertebrate the olfactory areas in the cerebral hemisphere, and the visual and general sensory nuclei in the thalamus and the mid-brain, are linked by means of numerous tracts to the hypothalamus, which at first is a relatively large part of the brain. In the pursuit of food, as well as in the animal's other vital activities, this large hypothalamic apparatus is thrown into action as soon as the sense of smell excites a response. By means of numerous descending tracts the hypothalamus exerts a widespread influence upon a variety of visceral and vasomotor functions, some of which stir into activity the glands and other structures directly concerned with the processes of swallowing and digestion, as well as other mechanisms which enable the creature to devote the whole energy of its body to the immediate and vital purpose of the pursuit. And when the consummation of the reaction is attained, and the buccal mucous membrane is

itself stimulated, ascending tracts carry to the hypothalamus the effects of this excitation of the taste organs, and through it stir up even more potent effects in the digestive and other visceral systems.

It is something more than a mere coincidence that the pituitary body is developed from a combination of buccal epithelium and hypothalamus, and is an organ which excites (no doubt by very different means) profound effects in the visceral systems, in some respects analogous to that obtained by the neural bucco-hypothalamic connexion.

Thus the hypothalamus represents the mechanism whereby the instruments concerned with the phenomena of consciousness can influence the visceral functions of the body, and express those manifold emotional effects which play so obtrusive a part in many experiences that are strongly charged with affective tone.

In the first lecture emphasis was laid upon the anatomical facts (*a*) that the cerebral hemisphere was derived from and built upon what in the primitive vertebrate was simply the receptive instrument for smell impressions; and (*b*) that the olfactory tracts, unlike all the other sensory paths, lead directly to the cerebral cortex without the intermediation of the thalamus. The primitive hemisphere, therefore, must have been the instrument whereby the affective aspect of smell was appreciated—that is, it performed the functions with which the thalamus is concerned for the other senses.

Guided by the sense of smell, the behaviour of the primitive vertebrate is brought under the influence of other "distance-receptors," which secondarily acquire an affective significance or meaning by being brought into intimate relationship with the dominant sense. Specializations of structure and function then develop by the cultivation of these other senses, often at the expense of the sense of smell, and animals like the teleostean fishes are evolved which are guided mainly by vision. This determines a high development of the mid-brain and a retrogression of the cerebral hemisphere. Incidentally such creatures lose the possibility of further advancement in the direction of the higher vertebrates, not merely because they have become specialists, but also because the adaptability of the cerebral hemisphere upon which real progress depends has been sacrificed in the acquisition of visual efficiency.

After discussing other variations that occur in fishes, the momentous changes effected in the brain by the adoption of life upon land and the emergence of the Tetrapoda were next considered.

The new mode of life demanded not only the development of entirely new modes of locomotion, but also a transformation of the distance receptors of the hind-brain, as well as the organs of smell.

For the organ that was evolved to detect slight movements in the water became the organ of hearing, and the olfactory mucosa, which was specialized to respond to very delicate forms of chemical stimulation, now became much more highly sensitive and adapted to appreciate the more subtle effects of minute air-borne particles of odoriferous substances.

The heightened powers of smell, the new powers of hearing, and the necessity for acquiring new methods of locomotion, provided a powerful stimulus to the cerebral hemisphere; and there are reasons for supposing that the earliest Tetrapoda were provided with a brain with a well-developed cerebral cortex. But their surviving amphibian descendants only in part emancipated themselves from the aquatic mode of life, and were satisfied with slow-going clumsy movements of a simple character. As the result their cerebral cortex underwent a process of retrogression, and the amphibia dropped out of the race for vertebrate supremacy.

But one group of proto-amphibians was more progressive. They acquired the power of more rapid movement and of more varied response to the influence of their environment. The sensitivity of touch, smell, vision, and hearing became heightened and the influence of these senses so intimately integrated by revolutionary changes in the cerebral hemisphere as to make possible a much more complex and intelligent behaviour. The increasing significance of vision, hearing, and touch, found expression in the sudden growth of the thalamus and the development of larger tracts of fibres ascending from the thalamic nuclei into the lateral edge of the pallium, which then suddenly expanded and bulged into the ventricle. The great mass of low-grade pallium, which may be called "hypopallium," thus formed represents the first relatively independent representation in the cortex of the senses of vision, hearing, and touch, at first chiefly of the trigeminal nerve. Then for the first time the cerebral cortex became an instrument whereby these senses played a combined part in controlling behaviour and added their quota to the discriminative side of the animal's consciousness. The reptile thus came to acquire the power of learning by experience from other senses than smell and of correlating the information acquired by touch, vision, and hearing, to perform acts of discrimination in which these several senses took a definite part.

But this hypopallium was an imperfect instrument; and when it became superseded by the development of the higher mechanism of the neopallium, it (the hypopallium) became converted into [the greater part of] the nucleus caudatus, the putamen and the claustrum.

RECONSTRUCTION IN MEDICAL EDUCATION.

BEING THE PRESIDENTIAL ADDRESS DELIVERED TO THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

BY

LIEUT.-COLONEL W. McADAM ECCLES, M.S., M.B., F.R.C.S., R.A.M.C.(T.F.),

SURGEON TO ST. BARTHOLOMEW'S HOSPITAL; PRESIDENT.

WHEN Peter, in *Joan and Peter*, was asked by his guardian to plan his own school, Peter considered and then said, "I'd like lessons about the insides of animals, and about the people in foreign countries—and how engines work—and all that sort of thing."

This was revolutionary, and, according to the recognized educational authorities, could not be permitted under any circumstances; hence Sydenham's visit to the appointed source of knowledge proved a dismal fiasco, and he was faced with the task of finding a sphere within which "reconstructed" education was really existent. He failed to find it, and by just such a degree Peter failed to secure what such an education would have provided. He was not much the worse for it, but he might have been so much the better had he had it.

The medical schools of Great Britain and Ireland have always had before them one principal object—the training of good general practitioners of medicine—and they have succeeded, for there is no other country in the world where such excellent men and women doctors can be found.

But medicine, surgery, and the allied subjects are always advancing, and the capacity of the human brain finds it difficult to keep pace with the advancement. For this, if for no other reason, reconstruction in medical education is called for.

Let me instance what I mean. When I was a student, not so very many years ago, all the medical out-patient work was done in a poor ill-equipped set of rooms, hidden away in a remote and rather dark corner of the hospital. Now there is a whole suite of rooms, well lit, well equipped, and used solely for its purpose. All the operative work on the surgical side was performed in a single operation theatre not used every day of the week. Now there are thirteen operation rooms of various sizes and for different departments. The entire accommodation for pathology was a poorly furnished room off the physiological department, enough perhaps, as only about half a dozen varieties of bacteria were known. Now the sections of pathology, general, histological, bacteriological, chemical, and research, are housed in a building which cost £30,000; and so it is with every other department.

In the face of these facts how is the student to be taught so that what he learns shall be adequate and sound? This is really the problem of reconstruction in medical education. The old was good, and the good that was in it must not be lost. The new is better, but its very vastness implies a danger. The preliminary and intermediate subjects, all of which are large sciences in themselves, have the possibility that they may be taught from an academic rather than from a practical point of view. Physics, chemistry, and biology—the foundations of a medical

education—must be taught, sometimes sufficiently learnt, at school, but they ought to be taught in their bearing upon the practice of medicine, hence perhaps the value of their being so taught at a medical school. At the public school, even with a modern side, the education in these sciences is apt to be sketchy and subsidiary, and frequently quite apart from their after-relation to medicine. At a university or medical school or science department they may be too elaborately expanded. Physiology and anatomy, the ground floor of medical knowledge, huge subjects and needing to be kept within bounds, must receive their proper and proportionate place. Physiology is the more difficult to handle. It is less concrete, constantly changing, somewhat elusive and uncertain, but the knowledge of all natural and normal functions is essential for a proper estimation of the abnormal as seen in disease. Anatomy, with its solid parts and form, is increasingly important with the expansion of operative procedure. The pure physiologist and the pure anatomist teaches without daily contact with the clinical, and are apt to wander from the practical application of their facts to the everyday practice of medicine and surgery, and in this lurks further danger. To a large extent this can be avoided by closer interrelations between these teachers and the clinical side. It is helpful to all concerned when the physiologist and the anatomist accompany the physician into the ward or outpatient room and discuss, in the hearing of the students, the bearing of their subjects upon a somewhat obscure nervous lesion. In "reconstructive" plans this "team" work between the intermediate (and even the preliminary) subjects should bear an important part.

In the advanced subjects—medicine, surgery, obstetrics, gynaecology, ophthalmology, and all the allied departments—the enormous strides made in methods of diagnosis and treatment has made the task of the teacher more and more intricate, and the burden on the student of absorbing and retaining what he is taught more and more difficult. Whatever else happens, nothing must occur which shall imperil the splendid bedside and other practical teaching for which British medical education is so famous. It forms the superstructure of knowledge for subsequent practice. It brings the student into personal and close contact with the patient. It develops all that *tactus eruditus* and all that *savoir faire* which should enter so largely into the character and actions of the practitioner. Go where you will, and you cannot find better general practitioners than in our isles and in our empire. But this fact must not blind our eyes to the vision of even better men and women—better equipped, better paid, and better rewarded in the future than in the past.

For all this reconstruction in medical education is surely needed; not revolution but reconstruction, not throwing away the good in the old, but grafting on the better in the recent.

Sir George Newman, to whose recent *Notes** must be ascribed a great up-lift for medical education, has put the finger on the spot when he writes: "There is too little medical teaching of university standard, especially in the final or clinical subjects."

There can be no doubt that it is due primarily to the fact that the clinical teachers when their experience is ripe have not the time, and often have not the inclination, for such teaching. The more the pity, but there is the bald fact. The primary question, therefore, would seem to be, How can this defect be overcome?

A possible solution, and one which will soon be put to the test, is the foundation of units of a professional type in the three chief branches of medicine—surgery and obstetrics and gynaecology. Men (or women) in the prime of life, of proved teaching ability, of ripe experience, with the love of and powers for inculcating a scientific spirit, appointed as whole-time professors or directors of clinic. Associated with them, assistant professors in training for professorships in their own school or elsewhere, and other well-paid assistants, clinical and pathological—the whole unit working together as a team.

They would undertake bedside teaching, possibly upon a series of cases—say of types of anaemia—gathered together in their wards at that time for special research work; outpatient teaching, again perhaps on a group of similar cases, say types of hernia; super-clinical lectures, thoroughly worked up, with cases, skiagrams, drawings, lantern slides, and even cinema films; and co-ordinated, physiological, anatomical, and pathological teaching. It is hoped that every student will be brought in contact with the professorial unit during some part of his clinical education. Whilst the personnel of the professorial unit are engaged in this teaching of a university character, the other clinical units will continue their sound and essential teaching both in-patient and out-patient, and will have associated with them students of all grades. By this means proper use will be made of the large amount of clinical material that finds its way to a hospital with an attached school.

Such is the vista; much may come of its accomplishment. There are difficulties. The type of men is rare, adequate money is not readily forthcoming, organization is none too easy; but difficulties are there to be overcome, and with perseverance they will be. It is particularly desirable that what we can recognize as bad, or at least poor, in the Continental type of clinical professor should be excluded in our reconstruction, but it is equally necessary that all that is good should be included. The thoroughness, the painstaking, the science of many can be taken, but the inhumaneness, the machine-likeness, and the want of imagination of some can be avoided.

With the end of the war the medical schools are being filled with eager students, many of whom have learnt a wider and finer outlook of life and its responsibilities, and it is only right that they should be provided with an education which will fit them for their life's work, and will give them such a grip of things that they will be a credit to their teachers and become a power in the land.

* *Some Notes on Medical Education in England.* H.M. Stationery Office, 1918, price 9d. See Sir Clifford Allbutt's review in the JOURNAL of August 3rd, 1918, p. 113.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ACRIFLAVINE IN THE TREATMENT OF GONORRHOEA.

IN a memorandum in your issue of June 7th Captain Armstrong cites his experience with acriflavine, in contradistinction to that of Davis and Harrell, as evidence of the divergent views of different observers. May I offer a few suggestions which may enable any who have met with similar difficulties to approximate the clinical results to the laboratory results which are acknowledged?

One must be as confident as it is possible to be that the infection is limited to the anterior urethra before adopting the syringe method of treatment. The main point in this connexion is the number of days since the appearance of the discharge; there must be no increased frequency of micturition, and, of course, neither pus nor blood in the second urine glass. But in spite of careful selection, there will be a considerable percentage of error owing to cases coming under observation during the incubation period of posterior urethritis. For this and other reasons I prefer as a routine treatment the lavation method described in my paper published in this JOURNAL on May 10th.

Acriflavine solution 1 in 1,000 may be irritating to the urethra, if used frequently and freely, or if unfiltered. When using the syringe method I prescribe a strength of 1 in 500 acriflavine in 1.6 per cent. sodium chloride solution, which is filtered by the dispenser, and in use is diluted with an equal quantity of warm water. The directions are that the syringe is to be used three times a day, and once in the night if occasion serves; the urethra is to be *gently* filled three times and the solution retained for one minute on each occasion. There is, however, no reason why a weaker solution (say 1 in 2,000) should not be used in a specially sensitive urethra; irritation must never be excited. For lavation 1 in 4,000 should not be exceeded.

The absence of gonococci at the end of three weeks' treatment in 17 of the 23 cases quoted is so far satisfactory. The presence of pus cells and mucus was to be expected in the irritated condition of the urethras which is described. The six cases in which gonococci persisted called for further examination and a fuller diagnosis. There may have been posterior urethritis, a minute cystic gland oozing at intervals, or a long infected duct; any of these call for special treatment.

In several thousands of patients treated with acriflavine I have never encountered retention of urine, except in three cases of prostatic abscess.

Glasgow. DAVID WATSON.

CREOSOTE IN PNEUMONIA.

THE article on inunction of creosote in pneumonia and influenza published in the JOURNAL of April 19th, by Major Wells, is of great interest to me, although my experience was with much larger doses, but Major Wells does not tell us how often he gives his half-minims in the twenty-four hours.

Some years ago—I am on active service, and so cannot give the date—I published in the *Canada Lancet* a series of 500 cases of pneumonia treated with creosote carbonate, with four deaths. I was led to draw the following conclusions:

(*a*) There was a marked absence of crisis; the temperature and respiration began to improve within four hours of the initial dose. If not, the case had been seen too late to be helped by any treatment.

(*b*) If the dosage was stopped there was an immediate return of all symptoms and rise of temperature.

(*c*) The drug had to be continued for some days (seven to ten) after all fever had disappeared and respiration had been normal.

(*d*) My best results were obtained with creosote carbonate in doses of min. 15, repeated every three or four hours. Guaiacol carbonate gr. xv did well in the absence of creosote, and better where tubercle was suspected. For children a drop in honey every hour was well borne. As soon as there was an amelioration the interval between doses was gradually lengthened.

The effect of the minute dose as given by Major Wells is a substantial confirmation of my own findings. The drug is excreted by the lungs, and the odour is perceptible in the room of the patient soon after the treatment is begun. I, too, consider it almost a specific.

I shall always regret that I had no opportunity of testing it in the pneumonia of influenza.

ASHTON FLETCHER, M.D., C.M.,
Acting Major R.A.M.C. (Temporary Commission).

INTUSSUSCEPTION ASSOCIATED WITH A FOREIGN BODY: OPERATION: RECOVERY.

A BOY, aged 1 year, was admitted to Savernake Hospital under me, with the history that for fourteen days he had had acute abdominal pain, had vomited three or four times daily, and was unable to keep down any food. There had been no action of the bowels since the onset of the symptoms, but a little slime had been passed by the rectum for the last ten days, and latterly this had been streaked with blood. He was very ill and pale, though not so wasted as might have been expected from the history; the tongue was coated with fur but moist. Little could be made out from examination of the abdomen, as the child screamed continually and the recti were held very tight. It was thought that a tumour could be felt in the right flank, but this was not certain. No tumour could be felt on rectal examination but the right iliac fossa seemed to be unusually empty, and there was blood and mucus on the examining finger. Intussusception was diagnosed.

When the child was anaesthetized a perfectly definite tumour was felt in the right hypochondrium; but after about two minutes it disappeared.

The abdomen was opened through the lower part of the right rectus, and the intussusception found as a large tumour lying below the right lobe of the liver; this was partially reduced before the main mass of the tumour could be withdrawn through the abdominal wound. It was then found that the intussusception was of the ileo-colic variety, the whole of the caecum and the appendix, which was 6 in. long, being involved in the middle wall of the intussusception. Reduction, with separation of adhesions, was effected with considerable difficulty. The bowel was examined for polypus or other cause of the trouble; the ascending colon and caecum were found to have an unusually long mesentery, but nothing else abnormal was detected. The colon and upper end of the caecum were then fixed in their usual position by means of two catgut sutures, and the abdomen closed. The appendix was not removed owing to the child's condition.

Progress was rapid and uneventful for three days; the temperature did not rise above 98° F.; there was no vomiting; nourishment was well taken, and the bowels were open daily.

On the morning of the fourth day the temperature rose to 99° F., and remained between 99° and 99.2° for seven days; for the first five of these days this was accompanied by some diarrhoea, and the child vomited four or five times. There were no other symptoms or signs; the appetite remained good throughout. After seven days the temperature returned to normal.

Three days later the motions were again loose, and the bowels acted four times in the day; the glass eye of a toy teddy-bear, the size of a pea and fixed to a blunt pin 1 in. in length, was passed by the rectum.

The child made a good recovery, and convalescence was otherwise uneventful.

The teddy-bear, minus one eye, was found at home by the mother, and the remaining eye, when removed, was found to be identical with the one which the child had passed by rectum. None of the toys in the hospital had similar eyes, so that the child had evidently swallowed the eye before admission to hospital, and one might conjecture that he must have done so when well, and with a healthy appetite.

Marlborough, Wilts. A. D. HAYDON, M.B., B.C.

ANEURYSM OF THE ABDOMINAL AORTA.

A WEST INDIAN native, aged 38, in Government employment, was sent to hospital on February 12th, 1919, with a provisional diagnosis of arthritis of the left hip-joint. He complained of pain over the area of skin, in the gluteal region and just above the iliac crest, supplied by the anterior branch of the twelfth thoracic nerve. The pain was persistent and kept him awake at night. He lay with the thigh slightly flexed and had considerable discomfort upon either extension or further flexion. There was no swelling, oedema, or tenderness in the region of the hip-joint nor over the painful area. There was rigidity of the back in the lower thoracic region, but no pain or tenderness there; the patient had not noticed the onset of the rigidity.

A few days after admission a definite fullness in the left iliac fossa could be felt, and, as the temperature was running irregularly up to 100.6°, the possibility of acute myositis of the psoas—a fairly common condition in natives here—was considered.

About a pint of fresh blood was discharged from the rectum on February 27th.

The swelling in the iliac fossa increased, and on March 10th an incision was made above Poupart's ligament into the psoas, and several ounces of destroyed, congested, dark muscle tissue were removed. There was no pus; the wound was plugged. A few days later there was a slight haemorrhage from the wound, and on March 13th a considerable haemorrhage from the bowels, which were open three times in the morning. Seventeen days after operation a more severe haemorrhage occurred from the wound with collapse greater than could be accounted for by the bleeding from the wound; the latter was explored and re-plugged, nothing being found except more broken down muscle. The patient died on March 29th, two days later.

Post-mortem examination revealed an aneurysm about the size of an egg in sacculated form from the back of the abdominal aorta at the level of the twelfth thoracic vertebral body. The aorta appeared normal from the front but was displaced forwards. The eleventh and twelfth vertebrae were eroded to a considerable extent, and the aneurysm was leaking into the psoas major. The whole muscle was disorganized, and the upper half was more clot than muscle, but gradually the proportion of muscle became greater until in its lower part, where opened into, there was a congested, swollen mass of muscle, very dark and infiltrated with blood. There was no leakage outside the muscle sheath. The left psoas was about three times as big as the right.

W. R. PARKINSON, F.R.C.S.
Lagos Hospital, Nigeria.

Reviews.

TEXTBOOKS OF PHYSIOLOGY.

WHEN a textbook of physiology reaches its seventh edition in a matter of thirteen years it is evident that it has met the students' needs, and the seventh edition of Professor HOWELL'S *Textbook of Physiology*[1] maintains the many good points on which so much stress has been laid in the past. Perhaps of all the textbooks on the market to-day it is the best written, but herein lies a very real danger to the ordinary student who does not think enough about what he reads. The drawback to Professor Howell's book is that it is too easily read, the salient points are not sufficiently emphasized, no hard grit is flung into the mental machinery to make it labour and demand the instant attention of the owner driver. It is a matter for regret that Professor Howell has not seized the opportunity, afforded by the cessation of nearly all physiological research, to recast his book, discarding much of the old material. Take the kidney, for example; surely it is time that much of the old experimental investigation on the secretion of the urine should be relegated to the lumber room, catalogued for reference, but not for memorizing, and that the more modern views, so ably discussed by Cushny and others, should be developed. And why, incidentally it may be asked, is the German spelling of Pavlov's name adhered to? "W" is never pronounced "v" or "ff" in the English or American dialects.

The first edition of the *Textbook of Physiology*,[2] by Dr. FLACK and Professor LEONARD HILL, which has just been published, is, with perhaps one exception, the most individual of all the textbooks now available. "The book," write the authors in their preface, "has been written with the primary object of giving to the student in an easily understandable form the fundamental facts and theories of physiology, bearing in mind the limitations necessary in a student's textbook." It may be ungracious to say so, but the book does not succeed in doing this. Had it been confined to the fundamental facts and theories of physiology, bearing in mind the limitations set, the book could have been very much reduced in size and issued at a lower price, instead of running to 800 pages and costing 25s. Incidentally, very material reduction might have been achieved by cutting out much of the practical work, principally chemical tests incorporated in the body of the book, work given better and more fully in any practical book for laboratory classes. The volume is divided into thirteen books of varying size and quality. As might be surmised, the sections dealing with respiration are among the most practical and original to be found in any textbook of physiology; the section on the circulation is, on the whole, well done, although here, as elsewhere in the book, the text is marred by some rather careless English. The functions of the skin, and the body temperature, particularly the latter, are discussed in a manner both useful and interesting. The same praise cannot be meted out to the chapters dealing with digestion and metabolism. Although they contain much that is interesting and deal more fully with the subject than many other textbooks, there is much that is not merely ill put but actually misleading. The secretion of urine is dealt with reasonably, but why refer to Bowman and Ludwig by name and ignore Cushny? The endocrine glands, in view of their importance, might have been discussed in more detail. Is there not now enough evidence to justify the separate discussion of the thyroid and the parathyroids? The book dealing with the tissues of motion gives a very just picture of the subject, and that devoted to the nervous system, although a little unequal in parts—the treatment of autonomic system, for example, is scanty—deals with the subject in an interest ng manner. The final chapter, on reproduction, treats the subject less as the Cinderella of physiology than most books. The illustrations, which are abundant and for the most part well chosen and well reproduced, are an excellent feature of the book. There is a good index.

At least four textbooks of physiology for students have appeared this year, and they all labour under the same drawback. The average student's textbook is too big and too expensive. The ordinary medical student is not going to become a specialist in physiology, and the enormous amount of detailed memory work demanded is apt to give him a distaste for the subject. There is room for a book which will expound the principles of physiology, underlining the essential facts without deteriorating into a cram book. Such a book would be of real value to the general practitioner also. As it is, at present the medical student cannot separate the wheat from the chaff, the practitioner has neither the time nor the inclination, and the teacher of physiology is between the devil and the deep sea—between the demands of an antique examination system and his intuitive knowledge that he is overloading the brains of his students, brains which should be cultivated, not used as dumping grounds for archaic hypotheses.

[1] *A Textbook of Physiology*. By W. H. Howell, Ph.D., etc. Seventh edition. Philadelphia and London: W. B. Saunders Co. 1918. (Med. 8vo, pp. 1059; 307 figures. 21s. net.)

[2] *A Textbook of Physiology*. By Martin Flack, C.B.E., M.B., and Leonard Hill, M.B., F.R.S. London: Edward Arnold. 1919. (Med. 8vo, pp. viii + 800; 485 figures. 25s. net.)

TREATMENT OF INJURIES OF THE LIMBS.

THE orthopaedic effect of gunshot wounds will be felt by only too many of our fellow men for many years to come, and therefore a clear and concise account of the best ways of treating them is most desirable. This we think is supplied by Mr. S. W. DAW in his book entitled *Orthopaedic Effects of Gunshot Wounds and Their Treatment*,[3] a recent contribution to the series of Oxford War Primers. In a short foreword Major-General Sir Robert Jones writes of the importance of the experience gained in the military orthopaedic hospitals and of the need for the diffusion of the knowledge gained by that experience throughout the country, in order that the maimed pensioner may be well treated. In some introductory notes Mr. Daw properly insists on the differences between orthopaedics in civil life and in the last four years of warfare; the greatest is the general prevalence of sepsis. He well shows how the difficulties arising from this circumstance are to be met, in his opening pages. The treatment of mal-united and ununited fractures, of ankylosis and of other deformities, either by open operation or by manipulations, splints, and so on, is satisfactorily indicated. Injuries of peripheral nerves are discussed and the lines along which success may be sought are clearly set out. An appendix on the treatment of functional disabilities, by Dr. Cuthbert Morton, concludes the book, which is well illustrated.

In a new volume on prosthetic apparatus for the wounded[4] Dr. DUCROQUET, orthopaedic surgeon to H. de Rothschild Hospital in Paris, has supplemented that on artificial limbs which he wrote in conjunction with Professor Broca. The association of the two surgeons is maintained in the new book, for a preface is contributed by Professor Broca. In it he laments the neglect to investigate the mechanical physiology of the joints and muscles. Medicine, he says, may have benefited by the too great devotion to chemical methods, but surgery has probably been the loser. Before applying curative or retentive apparatus an exact knowledge of the normal is necessary, and this knowledge Dr. Ducroquet has endeavoured to obtain and set forth in his new volume. He begins by considering the available points of fixation on the various segments of the limbs, and the choice of those most suitable for his purposes, illustrating his theses by drawings of various pieces of apparatus. This chapter is short and clear. That on the axes and mechanism of joints is of great value, for the experimental investigations here recorded should prevent orthopaedic mechanicians and limb makers from falling into the too frequent error of misplacing the joints of their apparatus, and thus causing discomfort and dissatisfaction or worse to the patients concerned. A case in point is that of the otherwise excellent calliper splint of H. O. Thomas; in it the centre of movement may be placed so far below that of the natural ankle as seriously to hinder movement when a T strap is used. The principles of construction of various pieces of

[3] *Orthopaedic Effects of Gunshot Wounds and Their Treatment*. By S. W. Daw, M.B., B.S.Lond., F.R.C.S.Eng., Captain R.A.M.C.(T.F.). With a foreword by Major-General Sir Robert Jones, C.B., and appendix on functional disabilities by Dr. Cuthbert Morton, M.A. London: Henry Frowde, and Hodder and Stoughton. 1919. (Fcap. 8vo, pp. 242+xi; 46 figures. 7s. 6d. net.)

[4] *La Prothèse Fonctionelle des Blessés de Guerre, Troubles Physiologiques et appareillage*. Par Dr. Ducroquet, chirurgien orthopédiste de l'hôpital H. de Rothschild. With a preface by Professor Aug. Broca. Paris: Masson and Co. 1919. (Cr. 8vo, pp. 233; 218 figures. Five francs + 10 per cent. = 5½ francs.)

apparatus are described and the details shown in clear illustrations; the manufacture of boots for normal and deformed feet with and without cork is discussed, and there is an interesting chapter upon the normal gait, studied by means of cinematic photographs. The numerous illustrations and the lucid descriptions form a very useful short guide to the study of walking. In addition there are a number of cinematic illustrations of abnormalities of gait due to various deformities. The section on pseudarthrosis contains many useful hints as to the application of apparatus; that on the examination of muscles is equally useful, and the instrumental treatment of nerve palsies is dealt with adequately. The only cutting operation described is that known as the Ducroquet-Launay operation for spasmodic club-foot; it consists of arthrodesis of all the joints of the astragalus except the tibial. The illustrations are clear, and the explanations of them have that quality of sharp-cut precision which we associate with French scientific literature. The little book will be found useful; its equivalent is hardly to be found in the English tongue. Unfortunately it has no index.

AN X-RAY MANUAL.

THE *United States Army X-Ray Manual*,[5] prepared under the direction of the SURGEON-GENERAL and of the Division of Roentgenology, is intended, without being a complete treatise on the subject, to serve as a guide for those doing the *x*-ray work in military hospitals.

Commencing with a chapter on *x*-ray physics, which is dealt with in a practical and lucid manner, and after a short account of laboratory experiments, a description of new apparatus, standard positions for radiography, dangers and protection, and fluoroscopy, there follows a graphic account of localization. This subject is dealt with in a very practical manner, and from the standpoint of the greatest service for the minimum effort, and with the fullest consideration for the patient. The six methods adopted for the army, and fully described, are the two wire, double-tube shift method; the parallel method; the tube shift method with mechanical triangulation; the profondometer; the Hirtz compass with accessory devices; and the cannula and trocar with harpoon. The working directions for all these are plainly indicated in simple language, and their individual value and advantages compared. Nothing essential appears to have been omitted, and with this book as a guide an army radiologist should be furnished with all the technical knowledge necessary for successful and accurate localization of foreign bodies situated in any part of the human anatomy.

From the military point of view the chapter which succeeds this, on bones and joints, is the next in importance, and stress is laid upon the point that in the radiographic examination of fractures the adherence to a routine and established type of technique is of considerable advantage. In addition to dealing with fractures, in this chapter are to be found short, concise paragraphs indicating the *x*-ray appearances which are to be expected in the various diseases of bones, conditions which are met with in military as well as in civilian practice.

The remaining chapters deal with the sinuses and mastoids, the teeth and maxillae, the thoracic viscera, the urinary tract, the gastro-intestinal tract, and conclude with a description of the measurement of an *x*-ray dose, and a short account of cutaneous *x*-ray therapy, including the treatment of sycosis, favus, and ringworm. There is also a reference to the work of Cole and Knox on the *x*-ray preparation of gunshot wounds for plastic operations.

A distinctive feature is the large number of illustrations which are beautifully reproduced. These consist in the main of the reproduction of diagrams of apparatus, and of photographs taken expressly to indicate the relative positions of individual parts under examination to the *x*-ray tube. They are well chosen, and serve to visualize the text and render the technical descriptions clear. A number of typical radiographs are also utilized, but, in contradistinction to most books on radiography, these are comparatively few in number.

Taken as a whole, the book forms an admirable treatise on the subject, more especially from the beginner's point of view, and whilst essentially written as a guide and aid for the newly trained military radiologist, its general scope is such that it should by no means be limited to these workers, and it can be recommended as a textbook invaluable as an introduction to *x*-ray work to all commencing the study of this branch of medicine, both medical men and lay assistants.

The publication of a manual of this kind is a further evidence of the efficient manner in which the United States set about to organize, from the very beginning of their entry into the war, the medical services; and also of the foresight displayed in the recognition of the very great importance of thoroughly organized *x*-ray work to the surgeons and to the wounded.

[5] *United States Army X-Ray Manual.* Authorized by the Surgeon-General of the Army. New York: Paul B. Hoeber. 1918. London: H. K. Lewis and Co. 1919. (Cr. 8vo, pp. 506; 219 figures. 18s. net.)

NOTES ON BOOKS.

IT is nearly a quarter of a century since Mr. JOHNSON SMITH first produced his *Medical and Surgical Help*[6] for the use of masters and officers of the mercantile marine. The aim of the manual was to serve as a guide to the preservation of health on board ship, and to the treatment of injury and disease at sea and elsewhere when professional aid is unprocurable; and also to arouse active interest in the courses of instruction given by ambulance associations. Since that time the work has passed through several editions, thus proving the esteem in which it is held by shipmasters and officers in the merchant navy. The fourth edition, with the exception of the chapters on first aid and other surgical matters, was revised by Dr. Arnold Chaplin, whose position as medical inspector to the Peninsular and Oriental Steam Navigation Company gave him special knowledge of what such a book ought to be. The parts dealing with the causation of disease—especially those due to tropical conditions—were rewritten, and in other respects the work was brought into line with present day needs. A fifth edition has now appeared, and this can be recommended to those for whom it is intended, though strictly speaking it would appear to be a reprint rather than a revised edition.

Those in search of a well written and sound French textbook of diseases of the skin cannot do better than invest in DARIER'S *Précis de Dermatologie*,[7] now in its second edition. The bulk of the book deals with the morphology of these diseases, the last three hundred pages with their nosology. It is well illustrated and full of first-hand observations and descriptions that render it a most valuable and practical textbook. It may be warmly recommended to medical students and practitioners alike.

Sir JAMES CANTLIE'S *First Aid to the Injured*,[8] now in its thirty-second edition, is a standard work that must have been studied by millions of readers. There is no better book for the tyro in the art of giving first aid, and we wish it the continued success it deserves.

The forty-first volume of the *Transactions of the Medical Society of London*[9] contains a number of interesting papers, including one (the presidential address) by Sir StClair Thomson on the foundation of the Society, and others on such subjects as "The value and limitations of sanatorium treatment," "The surgical and dental treatment of facial injuries," and "Aviation and medicine."

The *Transactions of the Thirty-ninth Meeting of the American Laryngological Association*[10] contains a number of interesting papers, including one in which is described a series of frozen sections of the thorax in the case of a syphilitic negro with a large aneurysm of the aortic arch, which caused death by rupture into the left bronchus. Eight photographic reproductions of these sections are included, and should be of service to topographical anatomists and pathologists.

[6] *A Medical and Surgical Help for Shipmasters and Officers in the Merchant Navy, including First Aid to the Injured.* By Wm. Johnson Smith, F.R.C.S.; revised by A. Chaplin, M.D., F.R.C.P. Fifth edition. London: C. Griffin and Co., Limited. 1919. (Cr. 8vo, pp. 372; 2 plates; 82 figures. 6s.)

[7] *Précis de Dermatologie.* Par J. Darier, Médecin de l'Hôpital Saint-Louis. Second edition. Paris: Masson et Cie. 1918. (Post 8vo, pp. xviii+864; 195 figures. Fr. 18.)

[8] *First Aid to the Injured.* Arranged according to the Revised Syllabus of the First Aid Course of the St. John Ambulance Association. By James Cantlie, M.A., M.B., F.R.C.S. Thirty-second edition, revised 1917 by a Committee. London: The St. John Ambulance Association. 1918. (4 × 5½; pp. 227; 117 figures. 1s. net.)

[9] *Transactions of the Medical Society of London.* Forty-first volume. Edited by Hugh Lett, F.R.C.S., and Edmund Cautley, M.D. London: Harrison and Sons. 1918. (Demy 8vo, pp. liii + 302; illustrated.)

[10] New York: American Laryngological Association. 1917. (Med. 8vo, pp. 390.)

CHILD WELFARE IN FRANCE AND GERMANY.

A REPORT on the welfare of the children of women employed in factories in France and Germany, prepared by the Intelligence Department of the Local Government Board in England, has been issued.[1] It contains much information which will prove of service to workers in child welfare everywhere. The report was originally prepared for the Welfare Advisory Committee of the Ministry of Munitions, but the coming of the armistice has set it free for general use. It must of course be borne in mind that it was compiled during the continuance of hostilities; and, further, that whilst much of what was being accomplished in France was known in this country already, a veil hung to a great degree over the procedure followed in Germany.

The call for women to perform unaccustomed tasks directly arising out of the war produced very soon an abnormal situation in both countries. Before the great conflict the employment of women in factories had been regulated very closely; night work was prohibited as well as certain kinds of day work, and working overtime was limited. But war came, and "the claims of the future which had prompted these measures had to be sacrificed to the urgent needs of the moment." As month after month passed anxiety began again to be felt regarding the future of the race, and an agitation to reimpose the safeguards in connexion with women workers was commenced. This agitation met with sympathy and with little more; and consequently active efforts were turned rather in the direction of mitigating the evils which have been produced than in that of preventing them altogether. It was felt that till war had ceased palliation was all that could be hoped for.

The Infant of the Industrial Woman Worker.

In the first place measures were taken to enable the woman to be both industrial worker and mother. The question will arise, now that the war is over, whether this is a practicable proposition at all, but during hostilities it was regarded as necessary that with the least injury to the children the practice of this double function should be continued. In both France and Germany there was consequently a large increase in the number of nursing rooms for infants who were at the breast, of crèches for older infants and for those who were not at the breast, and of nurseries for still older children; some steps, although they did not go far enough, were taken to ensure the medical supervision of these nursing rooms, crèches, and nurseries. These things had existed before the war, but in both countries there was a great expansion; more particularly efforts were made to bring the nursing rooms and crèches near to the factories where the mothers were at work. Further, in France a law was passed in 1917 under which employers were required to allow special rest periods to mothers in order that they might suckle their babies, and, under certain conditions, to provide rooms for the infants of the working mothers. In Germany there was no such general legislation, but the Imperial Crèche Association was active, more municipal crèches were established, and voluntary crèches also were set up, but had a short life because suitable fittings and trained medical and nursing staffs were not provided. The crèche associations were alive to the importance of maintaining breast feeding, and in some towns—for example, Barmen, Altenburg—special rooms were provided in which women might nurse their infants, and in others dinners were given to the mothers at the crèches. Some provision was also made for the older infants (of pre-school age) and for the school children out of school hours. These chiefly took the form of day shelters in Germany and of infant schools with playgrounds in France. As the war went on there was a tendency in both countries to extend these advantages to all children, and also to make the movement more a public and less a purely philanthropic and private one. Wide extension of the crèche movement with municipalization of it advanced together, and at the same time the voluntary societies, and especially the general associations, became better organized, faced the problems more fully, exercised more influence on public opinion, and co-operated with the public authorities more usefully. It is interesting to note that in Germany, in addition to State aid, the invalidity insurance institutions gave assistance, and even in some cases the fire insurance companies did the like, on the ground that children left without care caused fires.

It has to be admitted, however, that all these well-intentioned measures met with opposition, and were with difficulty carried out to the full. The institutions were not, speaking generally, popular with the working mothers, and, possibly on account of defective medical and nursing care, epidemics swept devastatingly through them on some occasions; this increased the disinclination already shown by the mothers to confide their children to them. Again, the workers in the institutions were not very generously rewarded for their services, and trained workers were scarcely to be had, although near the end of the war measures were being taken to train them more thoroughly. The consequence was that in both countries the children of working mothers were still mostly left in the care of relatives (chiefly grandmothers) or neighbours ("boarded out"), although it has to be added that the need for the supervision of such boarded-out children was appreciated and to some extent enforced. Thus, in Mannheim, the homes of such foster children were visited regularly by a nurse, and the children had to be brought periodically for medical examination to a doctor appointed for the purpose. Dortmund recently appointed a doctor to supervise all institutions in which children were cared for, either entirely, or by day or night only; and the Greater Berlin War Committee employed trained welfare workers to inspect all the institutions to which a grant was given out of the committee's funds.

The Working Woman before and after Parturition.

In the second place the report deals with the measures which were taken to help the woman to be a mother, but, of course, with the needs of the children as the primary consideration. These measures in this country (Great Britain) embrace all the various plans for the endowment of motherhood, for the teaching of mothercraft, and, speaking generally, for the mother welfare part of maternity and child welfare schemes. In France, probably on account of the low birth-rate, they seem to have been much more in evidence than in Germany, and they were looked at from rather different standpoints in the two countries. The whole world is indebted to France for the thorough discussion of these subjects, which took place in the Académie de Médecine in 1917. Dr. Pinard, it is true, did not carry his resolution that expectant and nursing mothers should be prohibited from working in a factory until at least six months after confinement, and that they should be paid five francs a day as compensation for loss of wages; but the committee which was appointed to consider Pinard's suggestions and those of Strauss made sundry recommendations regarding pregnant women and their work in factories which were entirely in the right direction. Thus the law of 1913, which had provided for optional rest for women before confinement, was altered so that the rest was obligatory for women employed in war factories, and it was strongly recommended that welfare supervisors should be appointed in all factories where a number of women were employed. In France, also, under the law of 1913 an allowance from the public funds might be received by necessitous mothers for eight weeks in all, of which at least four had to be after childbirth; the war led to an extension of the classes of women who might claim this grant. It has been suggested that some considerable modification of the maternity benefit under the Insurance Act in the direction of the French procedure should be made in this country. No doubt there would be difficulties, but these might be overcome.

In Germany a system of imperial maternity grants was first regulated by a law of December, 1914. The grants are given through the sickness societies to all insured, and therefore to all industrially employed, women. They included (*a*) a single payment of 25s. towards the expenses of confinement; (*b*) an allowance at first of 1s. and later of 1s. 6d. daily for eight weeks, at least six of which must be after the confinement; (*c*) an allowance of 10s. for medical attendance during pregnancy, if needed; and (*d*) an allowance for breast-feeding at the rate of 6d. per day for twelve weeks after confinement. The financial

[1] The Welfare of the Children of Women employed in Factories in France and Germany. Report prepared in the Intelligence Department of the Local Government Board. London: Published by His Majesty's Stationery Office. 1919. Price 6d. net.

arrangements made at certain of the French munition factories were on a still more generous scale. Every woman who had been employed in the factory for more than three months was entitled to full wages during four of the eight weeks of the lying-in period and half wages during the other four weeks. A maternity benefit of 50 francs was granted for each confinement which took place at the end of seven months at least, whether the child lived or not. In the case of twins the benefit was 100 francs. A monthly nursing bonus of 10 francs was allocated at the end of each of the four months following the confinement; and in the case of twins the benefit was doubled. There were various other money grants to encourage breast-feedin.

There are many other interesting facts in this report to which it is impossible here to refer; but in the main the impression left upon the mind is that in both countries, most, perhaps, in France, there was during the war a steadily increasing realization of the dangers due to neglect in the care of child life and an increased effort to meet and prevent these dangers. There was also in France, and to a less extent in Germany, a clear indication that the care of the expectant mother for her own sake as well as for that of her unborn child was now to be regarded as a national duty, as, indeed, a sort of first charge upon the national revenue. In this country we have no reason to be ashamed of the view which the medical profession and the health authorities take of the expectant mother and her rights; but the financial inducements held out to her and the detailed means of caring for her might both be greatly increased and the national exchequer be none the worse, but in the end much the better. After the war, doubtless, few married women will continue to be makers of munitions; but why should the measures for their comfort and safety in child-bearing which were granted to them during the war not be continued in the peace?

NATIONAL COUNCIL FOR COMBATING VENEREAL DISEASES.

THE fourth annual general meeting of the National Council for Combating Venereal Diseases was held at the Fellows' Rooms of the Royal Botanic Society on June 23rd. The Right Hon. Lord SYDENHAM presided.

Dr. Addison, who had been announced to speak, was prevented from coming owing to a meeting of the Cabinet at the same hour. The annual report of the Council instanced various directions in which the work had been influenced by the change from war to armistice conditions. A special demobilization committee had made recommendations which in the main applied the existing policy of the Council to the conditions of the moment. One new development had regard to the continuous treatment of infective persons, which had been the subject of several conferences with the medical representatives of the Local Government Board. The Executive Committee advocated legislation penalizing a person who failed to continue treatment until he or she was reasonably free from infection. The Local Government Board had also been asked to consider whether some modified form of confidential notification of infective cases could be adopted under existing powers, and whether at a later date fresh powers could be obtained from Parliament.

Lord SYDENHAM said that there were now 148 free clinics in the country, and further facilities for continuous and early treatment would be provided by the Ministry of Health. The relations of the Council with Dr. Addison's department had been drawn closer during the year, and the Council was now regularly employed as the educational medium for that department. The American authorities had been very helpful in supplying information, which the Council had reciprocated, and it would be a most valuable thing if in combating this gigantic evil the two great English-speaking peoples could stand together.

Colonel C. J. BOND, F.R.C.S., described how the problem had been tackled in Leicester. The city council was represented on the branch by five members, and its work was financed by the municipal Sanitary Committee. In that way the branch got the benefit of the advice and co-operation of men concerned in local administration, and also was given a status which it had not in towns where the organization was wholly voluntary. The work in Leicester began by means of conferences with various bodies of townspeople, including employers' associations, labour organizations, and religious bodies, and in this way a certain public opinion was built up. A series of lectures was next given to school teachers on instruction in sex hygiene, in the expectation that some of those attending might themselves become local lecturers. Leicester was a pioneer in the poster campaign; suitably worded posters, both for men and women, were, with the consent of the employers, put up in the workpeople's dining halls and common rooms. A later effort, started last winter in co-operation with the education authority, was to institute a system of instruction for scholars attending the continuation schools. It was also desired to work in harmony with the parents, and each scholar, therefore, was given the printed scheme of instruction, and told to seek the consent of his or her parent or guardian. During the last few months over one thousand scholars in the continuation schools, boys and girls separately, had received this instruction in sex hygiene. One kind of instruction was given to junior scholars under fifteen and a more advanced kind to those above that year, with whom it was possible to lay more direct emphasis on the problems of venereal disease. With regard to treatment centres, the attendance at the Royal Infirmary rose to 100 on a single evening, and it was proposed to erect a new building, in order that the department and its equipment might be kept entirely distinct from the rest of the work of the hospital. He trusted that in view of this necessity there would be some assurance from the Ministry of Health that the provision would be continued for a period of years. A need had arisen for more thorough classification of patients, especially on the women's side, as, for instance, the separation of the professional prostitute class from the class of women who might have been infected from their husbands. In conclusion, Colonel Bond said that he was anxious that the propaganda against venereal diseases should not suffer, as temperance work had done, from internecine strife. Two rocks ahead were the questions of prophylaxis and notification, but he hoped that wise and discreet judgements would prevail.

Sir MALCOLM MORRIS expressed the indebtedness of the Council for the assistance received from the Local Government Board in the matter of the Council's propaganda. It was due to advertisement in the public press and other channels that the attendances at the clinics were increasing all over the country, and these advertisements would have been out of the question but for money provided by the Government.

The meeting concluded with a vote of thanks to the Chairman, moved by Sir THOMAS BARLOW, and seconded by Dr. WINIFRED CULLIS.

RECRUITING FOR THE R.A.M.C.

WE have received from the War Office an intimation that medical officers for the R.A.M.C. are required to replace those who have urgent claims for demobilization, and also to serve in India at once. It is hoped that newly qualified men and those who have already served will respond to the appeal; the latter are required for India immediately, since they will be ready to go without delay. The newly qualified men are required for any duty, and will receive an outfit allowance. The following are the terms of the contract:

Pay and Allowances for Medical Men who Volunteer for Service with the Armies of Occupation.

Consolidated pay at £550 per annum, inclusive of all allowances except travelling allowance and expenses when travelling on duty.

Issue of rations, or allowance in lieu thereof at current rate when such are not available for issue (at present 2s. 1d. per diem).

Outfit allowance to be granted in the case of officers commissioned for the first time, £37 10s.

Candidates who have served before will be commissioned in their previous rank; and those who have not served before, as lieutenants. The period of engagement is for one year, or until no longer required, whichever shall first happen. Candidates must be fit for general service at home and abroad.

We are informed that the junior ranks of the Territorial Force and Special Reserve will receive the same rates as temporary officers. The total number required is large. Applications should be addressed to the Secretary, War Office, Adastral House, Victoria Embankment, London, E.C.4.

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CONSULTANTS WITH THE ARMIES ABROAD.

SIR GEORGE MAKINS'S Cavendish Lecture, in which he describes and discusses the position and duties of a consulting surgeon with the British armies in France and Flanders, raises many interesting points in medical administration. We believe he is right in thinking that civilian consultants, as such, were first attached to an army in the field during the South African war. The innovation was a matter of accident rather than of design; it arose from the fact that eminent civilian surgeons and physicians had offered their services and became by force of circumstances consultants in the areas in which they worked. The value of such assistance was recognized by the army medical authorities, and soon after the outbreak of the recent war men of high standing in the profession — physicians, surgeons, and an ophthalmic surgeon—were attached to the army in France in a consultative capacity; one physician and one surgeon for duty with the army in the field and the remainder at the bases. From this small beginning there grew up a large consulting staff in all the areas of hostilities. Their duties and responsibilities gradually widened as the value of their work became evident, but were never defined or codified. Consultants were also appointed in the Home Commands, and in their functions also a process of evolution went on; but the conditions at home and abroad differed considerably, and we propose to confine ourselves now to the work of the consulting physicians and surgeons in the principal theatre of war.

The medical administration of a large army in the field makes a heavy call upon the regular officers of the Army Medical Service, whose time and energies are for the most part absorbed in the duties of administration. Hence the purely professional work —whether surgical or medical—must largely devolve on civilians whose duty it will be to advise the administrative officers and guide them in all therapeutic and pathological matters. Thus no man can be regarded as a medical administrator of the first rank who has so neglected to keep himself in touch with the movement of scientific thought and practice that he is incompetent to comprehend the advice given to him. Nor can a consultant attain to his full military value without some knowledge and grasp of administrative principles, because lacking these he will be apt to make impracticable suggestions, losing sight of the needs of an army in contrast with the needs of the individual or of small groups. The primary function of the army consultant is to act as technical adviser to the administrator of the formation to which he is attached, and the greater his acquaintance and sympathy with army ways and needs the more readily will his suggestions be invited and adopted. A happy feature of the past five years has been the absence of friction between the administrators and consultants in the armies abroad, and this harmonious working, due to a proper appreciation of each other's duties, contributed largely to the success of the medical services. Sir George Makins puts the matter well when he defines the right official relation between consultant and administrator as one of mutual confidence and friendship, and he pays a well deserved compliment to Sir Arthur Sloggett for the example he set and the influence this had in promoting the efficiency of the system throughout France.

The consultant must interest himself in the preventive aspects of medicine and surgery, and here his work will naturally dovetail with that of the pathologist as well as the sanitary officer, in concert with whom must be devised methods for the control of epidemics, for the early detection of contagious disease, and for the prevention of wound infection. Preventive medicine and surgery in military life may be considered to have a very wide scope, and to include consideration not only of the prophylaxis of the enteric diseases, of cerebro-spinal fever, and of venereal disease, but also of the minor ailments that lead to so much wastage—for instance, affections of the ear, skin, and teeth, and the devising of methods for checking their incidence.

In the practice of military medicine and surgery certain broad principles of treatment must be defined with regard to the possibilities of the situation of an army in the field, which change with the character of the operations, the season of the year, the nature of the country, and the facilities for evacuation. For certain purposes a standardized mode of treatment is essential to secure the greatest good to the greatest number of men. Thus, for example, an individual surgeon may be able to treat a compound fracture of the femur in a way which is very successful, but his method may not be applicable to the mass of cases. Here the standard method (in this instance the Thomas splint) gives the best results all round, and, as a result of the representations of the consulting surgeons, was eventually adopted. So also it was considered wise at one period to issue instructions as to types of chest wound on which alone operations should be performed. It is obvious from these illustrations, which might easily be multiplied, that the dissemination of recent knowledge and information among scattered workers is an important function of consulting officers. Even in France medical units perforce worked in circumscribed areas, and the officers had little opportunity of hearing what others were doing. The consultants, acting as liaison officers, were able to take from area to area the news of fresh methods that were being effective, and so to spread rapidly information of vital consequence. To take one example: the surgeons at the casualty clearing stations were anxious to know the state in which patients they treated arrived at the bases, and whether the methods which seemed to them the best were in fact the most appropriate, having regard to the inevitable train journey which had to follow. Through the consultants, also, and the conferences they and other selected officers attended from time to time in Paris, information of great value was gleaned from the armies of our allies, and we in turn were able to help them. Further, by watching current medical literature —often unobtainable by medical officers in the field— consultants were in a position to furnish the workers in their areas with the latest news of technical advances. Again, by such means as giving lectures at schools of instruction, by fostering medical societies, and by holding conferences for the medical officers of armies, and of divisions during periods of "rest," new knowledge was spread, clinical interest was maintained, and discoveries in war medicine and surgery were made known generally. Sir George Makins lays particular stress on the value of the medical meetings promoted by consultants. Another constant

duty was the nomination of suitable medical officers for specialist duties—that is, the fitting of the round peg into the round hole. With the growing demands on medical men this became a harder task, and the balancing of conflicting needs required much thought. From the nature of his work and training the consultant must be in a better position than anyone else to advise in the selection of individual medical officers for particular posts, with due regard to efficiency and economy of personnel. This truth was year by year more fully recognized by the Director-General and the Directors of Medical Services of the Armies in France. It is an important principle of sound military administration which we hope will not be forgotten by the Army Medical Service.

The investigation of new or newly recognized diseases and the institution of appropriate methods of treatment formed a considerable part of the work of the consultants. In this—in France at least—they were closely linked with the adviser in pathology, and much of the grouped research work carried out was due to the close co-operation between him and them. The enthusiastic investigator is apt to immerse himself in an attractive field of research, and it needed stern discrimination to hold back eager workers from a problem of fascinating clinical interest which yet from its small numerical incidence might be unimportant to an army at war. A sense of proportion was no less necessary in deciding how far the consultant should give help in individual cases. In war the needs of the individual must be subordinated to those of the mass, and he who spent his time in running hither and thither from one patient to another, or in operating at a single unit, had none left to grapple with the larger problems of the army to which his energies might more usefully have been devoted. As the war went on and consultants became more numerous it was felt necessary to have more frequent meetings to discuss difficulties. Informal gatherings of those interested in special topics were held, and the outcome of these consultations—surgical, medical, or pathological—was forwarded to the Director-General. At times he also called together a full meeting of his consultants to discuss with them some matter of general principle on which their advice might be helpful, and the conclusions reached were promulgated through the armies as general instructions.

Such, in broad outline, were the duties which gradually became assigned to the appointment of consultants in general. The special functions of the consulting surgeon are discussed more fully by Sir George Makins, whose suggestions for the future are drawn from the wealth of an experience gained in two wars. Not being invested with administrative powers—and wisely so, in our opinion—the consultants had to carry out their work by advisory methods. It must be conceded that the difficulties were considerable. In their relations with the administrative branch they had to refrain from any attempt to interfere with routine administration. In their dealings with the medical officers they had to avoid the appearance of an intention to spy on their work, or to criticize unduly, and to make it plain that their object was rather to establish a bond of mutual regard and comradeship in effort. That those who filled the responsible posts of consultants did in very large measure succeed in attaining these objects is a matter on which they may pride themselves. If comparatively little has appeared in medical literature from the pens of most of our consultants, this must not be taken to indicate that they have observed little of interest, or have had little work to do; it may rather be held to show that they have preferred to remain silent, in order that the younger men who were doing the actual work might record their own results; much of this work probably owes its inspiration to the interest or the suggestion of some consultant. Certainly the war did in the different theatres of war build up a brotherhood of men, old and young, working together for the common good.

THE R.A.M.C. MEMORIAL SERVICE.

THE service in memory of all ranks of the Royal Army Medical Corps who gave their lives in the service of their King and country in the war of 1914–18, was held in St. Paul's Cathedral at noon on Wednesday, June 25th. There was a large congregation, including officers and men of every rank, many nursing sisters, and relatives and friends of those who had fallen. Beautiful music was provided by the band of the Grenadier Guards. The printed Order of Service was prefaced by a statement of the numbers of officers, warrant officers, non-commissioned officers and men who have been killed in action, or who have died of wounds or disease during the war, arranged according to the seven theatres of war. The number of officers who lost their lives is 568, and of these 400 were killed in action or died of wounds; in the other ranks 4,634 gave their lives, of whom 3,126 were killed or died of wounds. The statement of the number of those in whose memory the service was held was headed with these lines:

> Blow out, you bugles, over the rich Dead.
> There's none of these so lonely and poor of old
> But, dying, has made us rarer gifts than gold.

The congregation joined in the first hymn, "The Son of God goes forth to war"; then followed passages from the Burial Service, the twenty-third Psalm, and a Lesson from the seventh chapter of Revelation, read by the Dean. The memorial to the dead was spoken from the chancel in these words: "Let us remember with thanksgiving and with honour before God and men, all ranks of the Royal Army Medical Corps who have died giving their lives in the service of their King and country." Then Spohr's anthem "Blest are the departed" was sung by the choir. After short prayers and two further hymns the congregation stood while the Dead March in "Saul" was played. This was followed by the haunting notes of the "Last Post," played by buglers of the R.A.M.C. stationed near the west door; next there came a roll of muffled drums, and, as the sun burst through from a cloudy sky, lighting up the Cathedral, buglers in the chancel blew the "Reveille." Then the National Anthem was played, and the short and impressive memorial service came to an end. The service was attended by Princess Louise Duchess of Argyll and Princess Beatrice, and by Princess Helena on behalf of Princess Christian. Queen Alexandra was represented by Colonel Sir Arthur Davidson, and the Duke of Connaught (Colonel-in-Chief of the Corps) by Colonel Sir Edward Worthington. The Lord Mayor and Sheriffs attended in state. The Council of the British Medical Association was represented by Sir T. Jenner Verrall, Lieut.-Colonel Sir James Barr, and Lieut.-Colonel D. G. Thomson.

THE MINISTRY OF HEALTH.

THE King has approved the appointment of the Right Hon. Christopher Addison, M.D., M.P., to be the first Minister of Health. Orders in Council will be issued at once formally setting up the Ministry of Health for England and Wales and for the creation of Boards of Health in Scotland and Ireland to correspond with the Ministry of Health for England and Wales. The functions and staff of the Local Government Board for England and Wales are being handed over to the Ministry of Health, and the Board will cease to exist on July 1st. The powers and duties of the Insurance Commissioners have also

been handed over to the Ministry of Health. Although all the powers of the Local Government Board are transferred to the Ministry of Health, the Act, as is well known, provides that some of the powers thus transferred shall subsequently be handed over to other departments, while some of the powers of other departments, such as those affecting school children and expectant and nursing mothers, will eventually be transferred to the Ministry of Health. Orders in Council making these further changes will lie on the table of both Houses of Parliament for thirty days before they become operative. The first step to be taken by the Minister of Health will be to set up four consultative councils—for medical and allied services, for national insurance (approved societies' work), for local health administration, and for general health questions. Each council will consist of not more than twenty members, who will hold office for three years, but will be eligible for appointment for a further term. The Minister will be the president, and the Parliamentary Secretary to the Ministry the vice-president, of each council; but the Minister will appoint a chairman who will preside in the absence of the president and vice-president. A council will meet not less often than once a quarter; the Minister will appoint the secretary; ten will be a quorum. In a statement made on June 24th, Dr. Addison expressed the hope that some large proposals would be got ready this year. This may point to a bill this session for the reform of the Poor Law But, apart from the legislative programme the Ministry has in hand, it would, he said, be possible to push on rapidly with changes which can be carried through by administrative action. It is intended to set up many more maternity and child welfare centres; additional centres for venereal disease must also be established; the problem must be faced of how to conduct them so that the people for whom they are provided shall be ready to make use of them. The Canadian Red Cross has presented its hospital at Bushey, which was on Crown land, to the King, who is handing it over to the London County Council, and its large hospital at Taplow to Dr. Addison, who has arranged for removal to a suitable site near Birmingham, where it will be maintained by the corporation of that city. Both will be used as hospitals for children; together they will provide accommodation for between seven and eight hundred children. Dr. Addison spoke hopefully of housing; the prospects, he said, were improving, and some thousands of houses were already in process of construction. That was more than he had expected, for delay had been inevitable, owing to the fact that the vast majority of local authorities had been without any staff to prepare plans, outlays, and specifications; many of them had not yet obtained an adequate staff, and as some had had no experience in building, or very little, it was necessary that they should take time to consider the matter and to obtain adequate staffs. Some local authorities which had not yet been able to start building had begun work in laying out the sites and making streets. More material was, he said, available than could be used for some time, owing to the shortage of labour in the building trade, which, he feared, was likely to become more acute this autumn. He announced later that the Council of the Building Trades Federation will shortly be called together to arrange a scheme which would be accepted by both employers and workers.

GRANTS TO UNIVERSITY INSTITUTIONS.

THE Estimates for this year, as was mentioned a couple of months ago, contain a vote for one million to cover grants in aid of the expenses of universities and colleges in the United Kingdom and of the expenses under the Welsh Intermediate Education Act. The deputation from the universities of the United Kingdom, received last November by the Chancellor of the Exchequer and the President of the Board of Education, convinced the Government that the existing provision for aiding university education must be increased, and it is intended that in future the sum of one million annually shall be apportioned between university institutions in England, Scotland, and Ireland. This year Parliament is being asked for a special additional vote of half a million to assist universities, colleges, and other similar institutions, including medical schools, which are in need of special assistance, in order that they may resume their full work under favourable conditions and may not be hampered by the extraordinary expenditure which has been caused by the prolonged interruption of their activities and development brought about by the war. The Treasury, after consultation with the President of the Board of Education, the Secretary for Scotland, and the Chief Secretary for Ireland, has appointed a Standing Committee "to inquire into the financial needs of university education in the United Kingdom, and to advise the Government as to the application of any grants made by Parliament towards meeting them." The chairman of the committee, which will be known as the "University Grants Committee," is Sir William M'Cormick; the other members are Mr. William Bateson, F.R.S., formerly Professor of Biology in Cambridge; Sir Dugald Clerk, until recently Director of Engineering Research to the Admiralty; Sir J. J. Dobbie, F.R.S., Principal of the Government Laboratories, London; Miss S. M. Fry; Sir F. G. Kenyon, K.C.B., Director and Principal Librarian of the British Museum; Sir Stanley Leathes, a Civil Service commissioner; Sir William Osler, F.R.S., Regius Professor of Medicine in the University of Oxford; and Sir J. J. Thomson, President of the Royal Society. The appointment of such a committee is a new departure. It will be directly responsible to the Treasury, and will in future determine the allocations from the annual vote by Parliament. It is intended that the annual grants allocated to the different institutions shall be inclusive block grants, to be expended at the discretion of the governing bodies, and that they shall remain fixed for a prescribed period of years, subject to revision at the end of each prescribed period. It is also intended that the method of distribution shall be such that the individuality of each institution shall have free play and that the legitimate interests of university autonomy shall be safeguarded.

A FLOATING SCHOOL OF TROPICAL MEDICINE.

DR. LOUIS SAMBON on June 14th delivered a lecture, on the sanitation of tropical lands, before a large audience at the Royal Society of Medicine. The suggestions he put forward were founded upon a five months' visit to the West Indies in 1913, and the lecture was given by arrangement with the West India Committee. Dr. Sambon recalled the fact that in 1897, in the columns of this JOURNAL, he contested the belief that the white man could not be acclimatized in tropical countries, maintaining that it was not climate but disease which opposed tropical colonization, and that the diseases of tropical countries were due to parasites. On this theory acclimatization became simply a matter of active and intelligent hygiene. This view was supported at the time by Sir Patrick Manson and Sir James Cantlie, and the eminent geographer Sir Harry Johnston, but was opposed by other authorities. One object of his visit to the West Indies was to investigate further his hypothesis that pellagra was an insect-borne disease. Each of the islands had its own geological structure, its own flora and fauna. In one island would be found a disease from which another island was exempt; in Barbados, for example, there was no malaria; yaws also, which at one time was a plague on this island, seemed now to have disappeared. But Barbados had three terrible scourges — elephantiasis, leprosy, and pellagra. The islands of the Lesser Antilles altogether offered opportunities for the study of tropical diseases such as might be impossible in vast forest-covered continental areas. The medical men now practising there were most zealous, but they suffered from lack of laboratory

equipment and were miserably paid, some of them having to add to their income by cultivating the sugar-cane or by rearing cattle. The hospitals offered rare opportunities for clinical investigation, but owing to difficulty of access to current medical literature, many things went unpublished because those in whose way they came had no idea whether or not they had been published already. In the matter of sanitation the profession in the West Indies was not adequately supported by the lay authorities. Dr. Sambon suggested that there was here a great opportunity for a school of tropical medicine of a new order—a floating school which would bring the students periodically into the tropics. If once or twice a year such a trip, perhaps under international auspices, could be arranged, the students would benefit by actual contact with the diseases in their natural habitats, and regular visits of students and teachers would stimulate sanitation in the parts visited. A pathological survey of the Lesser Antilles should be made, and one of the islands—Barbados lent itself particularly well to the experiment—might be made perfectly clean, in the same way as Havana and Panama had been cleaned by Gorgas. It was a reflection upon the British Empire that elephantiasis, leprosy, and pellagra should still be so widely prevalent in these possessions in the Caribbean Sea, especially the first of the three diseases, in view of the knowledge as to its mode of transmission. By effective measures the disease could be stamped out in a few months. Dr. Sambon added that he had had the opportunity of bringing forward this suggestion for a mobile school both in France and Italy. In Italy it had secured the enthusiastic support of the Italian Government and the Colonial Institute of Naples. In Paris the Faculté de Médecine acclaimed the proposal, and it was stated that it would receive assistance from the French Government. The present suggestion was that an experimental journey be undertaken next summer to determine what could be done later on a larger scale.

THE ROYAL SOCIETY'S CONVERSAZIONE.

MANY of the demonstrations given at the first summer conversazione of the Royal Society on May 28th (as noted in the JOURNAL of May 31st, p. 682) were repeated at the second on June 25th. Dr. J. S. Haldane, F.R.S., and Dr. J. G. Priestley demonstrated an army form of apparatus for continuous oxygen administration; by means of a reducing valve and graduating tap a constant stream of oxygen of the necessary amount is delivered into a small bag attached to a face-piece, the bag being emptied at each inspiration and none of the oxygen wasted. With the apparatus oxygen can be administered for several days, if required, without waste. They also showed an apparatus for the continuous recording of the frequency and depth of breathing. Mr. Joseph Barcroft, F.R.S., demonstrated a model of a small hospital for the treatment of chronic cases of gas poisoning by means of continuous inhalation of oxygen. Professor Dreyer of Oxford showed an apparatus extensively used by the Air Force in the later part of the war for automatically administering to aviators the amount of oxygen necessary at any altitude. Professor Leonard Hill, F.R.S., gave a very interesting demonstration on the effect of strong winds in retarding the growth of plants. Mustard seeds were sown on moist lamp wicks placed in a glass cylinder through which a current of air was drawn at the rate of about 5 metres a second; the seeds were inhibited from growing, though they were kept moist, whereas in a control cylinder normal growth took place. The failure was thought to be due to failure of the seeds to swell in spite of being kept moist. Mr. A. Chaston Chapman exhibited the "mineral yeast" used in Germany during the war for human food. The organism is not a true yeast, but grows freely on nutrient media at blood heat, producing a full crop in about thirty-six hours. It does not produce alcohol. The separated organism contains 50 to 55 per cent. protein and about 5 per cent. of fat. It is entirely free from bitterness and has a pleasant flavour suggestive of cream cheese; it could take its carbon from glucose, molasses, or the conversion products of sawdust, and its nitrogen from ammonium salts. It was manufactured in Germany in considerable quantities as a useful adjunct to the bread ration. Sir Almroth Wright, F.R.S., Mr. L. Colebrook, and Mr. A. Fleming gave a demonstration on the parts played by white blood corpuscles and body fluids, and on the destruction of microbes, similar to that given at the first conversazione. Specimens were put up illustrating the growth of anaërobic organisms under aërobic conditions, such substances as minced meat, sand, plaster-of-Paris, cotton-wool, paper and cork being added to the media; the explanation given was that the effect was produced by the minute capillary spaces in these substances. Dr. A. O. Rankine demonstrated the possibility of transmission of speech by light. The receiver consists of a selenium cell (Fournier D'Albe pattern) in series with a battery and telephone receivers. Upon the selenium cell is concentrated, by means of a lens, some of the light sent by the transmitter. The transmitter is a device for causing the intensity of a beam of light to fluctuate in accordance with the vibrations of speech. This fluctuating beam causes the current in the selenium (and therefore in the telephone receiver also) to vary in the same manner, so that the speech is reproduced. Transmission is entirely cut off by interposing an obstacle in the way of the beam. Mr. A. A. Campbell Swinton, F.R.S., showed an apparatus by means of which it was possible to magnify weak wireless signals and to dispense with the usual large aërials and substitute a small flat coil of wire for them in wireless telegraphy. A siphon recorder was at work taking down messages sent from the Eiffel Tower. Mr. A. Mallock, F.R.S., showed a very simple form of cinematograph in which there was an absence of flickering on the screen, and by means of which the rate of speed of the film could be regulated at will. The cinematograph film passes as a belt over part of the circumference of a wheel. At half the radius of this wheel a number of plain mirrors are placed so as to form a polygonal cylinder about the axis. The virtual images of the film pictures in the mirrors are at the axis, and therefore, being stationary, can be projected on the screen by means of a fixed lens. Not without interest to medical men at the present time was a portrait exhibited by Mr. George H. Gabb of Dr. John Jeffries, who was the first man to cross the Channel in a balloon, on January 7th, 1785. That adventurous voyage created as much excitement as the successful and unsuccessful Atlantic flights, and was held to be as epoch-making.

SINCLAIR WHITE OF SHEFFIELD.

MR. SINCLAIR WHITE, senior surgeon to the Sheffield Royal Infirmary, has retired from the active staff of that institution. This announcement was made at a quarterly meeting of the Court of Governors last week, when the chairman said that during the twenty years of Colonel Sinclair White's connexion with the Royal Infirmary he had been its zealous, able and judicious supporter. Sir William Ellis, a member of the board for many years, in seconding a resolution appointing Colonel Sinclair White to be consulting surgeon, spoke warmly of the great value of Colonel White's services to the institution. He had brought enterprise to the work, had advised the board wisely on many occasions with regard to extensions, and had always been an influence working for harmony. Colonel A. M. Connell, who succeeds Colonel White as senior surgeon, said that during the twenty years they had worked together Colonel White had transformed the infirmary, and had introduced into it all the modern methods of surgery, so that to-day it would compare with any other hospital in the kingdom. Mr. Sinclair White, it will be remembered, was general secretary of the annual meeting of the British Medical Association at Sheffield in 1908, and on the death of Mr. Simeon Snell, the President of the Association, succeeded him in that office

for the remainder of the period, and inducted his successor, Sir William Whitla, at the annual meeting in Belfast in 1909. At the outbreak of war Lieut.-Colonel Sinclair White was surgeon *à la suite* to the 3rd Northern Territorial General Hospital, and during the first years of the war devoted himself, with a zeal and assiduity which made serious calls upon his strength, to the surgical work of that hospital, which soon underwent great enlargement. About a couple of years ago he succeeded Colonel Connell as commandant of the hospital, a post which he had occupied before the war and still retains. In the last honours list he received the C.B.E. in recognition of his military services. Mr. Sinclair White, before he became attached first to the Royal Hospital and afterwards to the Royal Infirmary, Sheffield, was M.O.H. for the city, and in that capacity made a remarkable report on the action of soft moorland waters containing humic acid on the lead piping of domestic supplies. Since he gave the whole of his attention to surgery he has achieved a commanding position as one of the most progressive and skilful of English surgeons. His sterling qualities, his upright character, and sound judgement make him a power in Sheffield and a great influence in the profession in the districts around.

OXFORD OPHTHALMOLOGICAL CONGRESS.

The chief event of the Oxford Ophthalmological Congress, to be held in the week after next, will be the discussion, on July 10th, following the Doyne Memorial Lecture on preventive ophthalmology by Colonel J. Herbert Parsons, consulting ophthalmic surgeon to the forces. Colonel Parsons will consider the subject under two heads—the prevention of damage (1) to the individual, and (2) to others. Under the first head is included prevention of damage to the eyes from accidents, defective illumination, deleterious rays, and organisms, and prevention of damage to health from headaches, accidents, and fatigue; under the second head will be considered regulations for the prevention of the transference of contagious diseases and the regulations for public services, involving *inter alia* standards of visual acuity, colour vision, and judgement of distance. It will be pointed out that since preventive ophthalmology calls for collective action, consideration of the means of organizing such action is of predominant importance in the present period of reconstruction. For the prevention of accidents to the eyes in factories the necessary education of workmen may be carried out partly by welfare workers and partly by "safety first" propaganda. If necessary these means must be reinforced by penalties such as the release of employers from liability. A scale of awards for compensation, founded upon scientific principles, is urgently needed, and the institution of adequate regulations for the public services will demand a widening of the basis of education of ophthalmologists, co-operation between ophthalmologists and other experts, and improvement in the methods of examination of candidates and the selection of examiners. The lecture will be given at noon, and the discussion, in which a number of speakers have already intimated their intention of taking part, will be continued in the afternoon. On Friday a number of papers will be read. Among those taking part in the Congress will be ophthalmologists from the United States and Canada. An exhibition of scientific and commercial objects is being arranged. Further particulars of the Congress can be obtained from Mr. Bernard Cridland, Salisbury House, Wolverhampton.

SIR WILLIAM OSLER.

On Friday, July 11th, Sir William Osler, Regius Professor of Medicine in the University of Oxford, whose 70th birthday occurs on the following day, will be presented by some of his pupils, colleagues, and friends with a collection of essays. The presentation will be made by Sir Clifford Allbutt, Regius Professor of Physic in the sister University of Cambridge. The ceremony will take place at the house of the Royal Society of Medicine, 1, Wimpole Street, London, at 5.15 p.m. All members of the medical profession will be welcome. The contributions to the presentation volume have been collected by a joint committee. Dr. William H. Welch has acted as chairman, and Dr. Casey A. Wood as secretary of the committee; the other American members were Drs. Harvey Cushing, Charles L. Dana, Fielding H. Garrison, A. Jacobi, G. E. de Schweinitz, Henry Barton Jacobs, Francis J. Shepherd, and Horatio C. Wood. The British members were Colonel J. G. Adami, C.A.M.C., F.R.S., Dr. Raymond Crawfurd, Sir Bertrand Dawson, G.C.V.O., Sir Walter Fletcher, F.R.S., Professor Arthur Keith, F.R.S., Sir Andrew Macphail (McGill University, Montreal), Sir D'Arcy Power, K.B.E., Sir Humphry Rolleston, K.C.B., and Dr. Charles Singer, of Exeter College, Oxford, who has acted as secretary of the English section. The essays form two large octavo volumes, of over 700 pages each. The frontispiece is an engraved portrait of Sir William Osler, and the articles are illustrated by numerous plates and drawings in the text. The intention has been that the volumes shall present the finest work of printers and binders, and we are told that this aim has been fully attained. The contributors appear to be drawn in about equal proportions from the leaders of medicine in the United States of America and in the British Empire. Their contributions cover a very wide field—the history of medicine, medical education and research, and pathology and therapeutics—thus reflecting the many-sided interests of the great physician the volumes are intended to honour.

Mr. N. Bishop Harman, F.R.C.S., has been appointed ophthalmic surgeon to the National Institute for the Blind.

Medical Notes in Parliament.

On June 24th the House of Commons resumed its sittings after the Whitsuntide recess, and the expectation is that the session will be continued far into August and then adjourned until November. There has been talk in some quarters (particularly amongst the Labour group outside Parliament) of a General Election in the autumn, but at Westminster the prevalent belief is that this will not occur, unless a split in the Coalition Party should take place on matters of policy, and adequate support should not be available to sustain a reorganized Government. Mr. Lloyd George has already intimated that so soon as opportunity allows he will restore the Cabinet system. The War Cabinet will be replaced by a larger one, but not so large as in recent years. The immediate issue for which the present House of Commons was elected—the successful conclusion of the war—having been attained, other big questions, involving policy for the future, will come up, and many members not being definitely committed upon them, there will be a revival of controversy and of interest in Parliament. The report of the Coal Commission raised, for example, the issue of coal nationalization; the fiscal policy of the Government has to be defined for the future; and some decision may have to be taken in regard to Ireland, the operation of the Home Rule Act, which nobody thinks applicable in its present form, having been suspended only for a limited time.

It was intended to take the Transport Bill on report from Grand Committee on June 24th, but it is the subject of a good deal of contention, and as Mr. Law had to be away in Paris its consideration was postponed. There is some probability that Mr Lloyd George may, early next week, make a statement on the Peace Treaty, and that a short debate may ensue.

Tuberculosis in the Navy.—Lieutenant Commander Kenworthy asked the Pensions Minister, on June 24th, whether a decision had been reached with regard to men invalided for tuberculosis from the Royal Navy before the war; and whether he would consider granting a pension to these men in view of the additional medical evidence on this disease brought to light during the war. Sir James Craig said that the Minister was not prepared to revise the findings of the Admiralty in the case of men invalided from the Royal Navy before the war, nor was he aware of any additional evidence that would justify him in doing so.

BIRTHDAY HONOURS.

THE following completes the list of honours conferred on the occasion of the King's birthday.

O.B.E.

Temporary Captains: Francis J. Allen, M.C., R.A.M.C., Ernest F. Bashford, R.A.M.C., George W. Beresford, R.A.M.C., Adam Brown, R.A.M.C., Claude G. Colyer, R.A.M.C., Colin McK. Craig, R.A.M.C., John G. Craig, R.A.M.C., Thomas D. Cumberland, R.A.M.C., Norman G. W. Davidson, R.A.M.C., Roy S. Dobbins, R.A.M.C., Percy W. Dove, R.A.M.C., James D. Driberg, M.C., R.A.M.C., Cuthbert Dukes, R.A.M.C., Aubrey Goodwin, R.A.M.C., Charles B. Goulden, R.A.M.C., Andrew Grant, R.A.M.C., James N. J. Hartley, R.A.M.C., John Jardine, R.A.M.C., William C. Jardine, R.A.M.C., George L. Leggat, R.A.M.C., Thomas P. Lewis, R.A.M.C., Walker S. Lindsay, R.A.M.C., Peter Lornie, R.A.M.C., Norman P. L. Lumb, R.A.M.C., Francis C. MacDonald, R.A.M.C., Ronald MacDonald, R.A.M.C., William MacEwen, R.A.M.C., Archibald MacMillan, R.A.M.C., Rom Charndr Malhotra, I.M.S., Octavius de Burgh Marsh, R.A.M.C., Octavius S. Maunsell, R.A.M.C., Edward T. C. Milligan, R.A.M.C., Robert Foster Moore, R.A.M.C., John T. Morrison, R.A.M.C., Everitt G. D. Murray, R.A.M.C., Stuart Murray, R.A.M.C., William A. Murray, R.A.M.C., Gordon L. Neil, R.A.M.C., George C. Neilson, R.A.M.C., Frank Newey, R.A.M.C.(T.F.), Alexander C. Palmer, R.A.M.C., Alfred C. Pickett, R.A.M.C., Albert E. Pinniger, R.A.M.C., William A. Rees, R.A.M.C., John W. Robertson, R.A.M.C., Robert C. Robertson, R.A.M.C., Herbert P. Shackleton, R.A.M.C., William Stirling, R.A.M.C., Adrian Stokes, D.S.O., R.A.M.C., James R. Stott, R.A.M.C., Edward J. Stuckey, R.A.M.C., Cedric R. Taylor, R.A.M.C., John Robert K. Thomson, R.A.M.C., Eustace Thorp, R.A.M.C., Arthur T. Todd, R.A.M.C., Charles W. Wanklyn-James, R.A.M.C., James Wernock, R.A.M.C., Henry H. Weekes, R.A.M.C., Maurice H. Whiting, R.A.M.C., Ernest U. Williams, R.A.M.C., John Alexander Wilson, R.A.M.C., Francis A. Winder, R.A.M.C., Ernest B. Wortley, R.A.M.C., Henry Yellowlees, R.A.M.C., Ernest William G. Young, R.A.M.C., Frederick H. Young, R.A.M.C.

Dr. Cecil H. Elmes, officiating Health Officer, Port of Calcutta.

Dr. James G. Johnstone, Lingah, Persian Gulf.

Dr. Elsie J. Dalyell, R.A.M.C.; Dr. Elizabeth H. Lepper, R.A.M.C.

Lieutenants (temporary Captains) Oswald Duke Jarvis, R.A.M.C., John Smith Sloper, R.A.M.C.

M.B.E.

Lieut.-Colonels: Philip Barnett Bentliff, Royal Jersey Medical Corps, Edwin Quayle, R.A.M.C.(Lancs. Volunteers).

Temporary Lieut.-Colonel John Keay, R.A.M.C.

Major and Brevet Lieut.-Colonel David Rennet, R.A.M.C. (T.F.).

Majors: Richard Brodie, R.A.M.C.(T.F.), William H. Pettit, N.Z.M.C., Henry S. Webb, R.A.M.C.

Temporary Majors: Albert E. Barnett, Special List, R.A.M.C., Archibald Stodart-Walker, R.A.M.C.

Captain (temporary Major) Walter E. Squire, R.A.M.C.

Captains (acting Majors): Cyril Armstrong, R.A.M.C.(S.R.), Eustace N. Butler, R.A.M.C.(T.F.), Charles H. Caldicott, R.A.M.C.(T.F.), James H. Crane, R.A.M.C.(T.F.), Bertram M. Footner, R.A.M.C.(T.F.), Oswald C. G. Shields, R.A.M.C., Lockhart J. Spence, R.A.M.C., Frederick J. Thorne, R.A.M.C.

Captains: Arthur G. Atkinson, R.A.M.C.(T.F.), Ernest P. Carmody, R.A.M.C., John Chambré, Gerald S. Coghlan, S.A.M.C., Robert D. A. Douglas, S.A.M.C., John I. Greig, R.A.M.C., David N. Isaacs, N.Z.M.C., Edward C. Lowe, N.Z.M.C., Stuart M. McPherson, S.A.M.C., Archibald G. H. Smart, R.A.M.C., Herbert V. Stanley, M.C., R.A.M.C., Douglas S. Stevenson, Arthur Henry Thomas, R.A.M.C., Charles R. Woodruff, R.A.M.C.(T.F.).

Temporary Captains (acting Majors): Stanley Brown, R.A.M.C., Charles M. Kennedy, R.A.M.C., Henry F. Mullan, R.A.M.C.

Temporary Captains: George G. Butler, R.A.M.C., James B. Butler, R.A.M.C., Andrew Crawford, R.A.M.C., John C. Fergusson, M.C., R.A.M.C., Andrew Grant, R.A.M.C., Walter Groome, R.A.M.C., Worsley J. Harris, R.A.M.C., Reginald Johnson, R.A.M.C., Edward J. J. Quirk, W.A.M.S., John Howard Slayter, C.A.M.C., James B. Wilkie, R.A.M.C.

Honorary Captain Rivers Thomas Rodgers, I.M.D., Superintendent I.M.D., and Central Jail, Jubbulpore, Central Provinces.

Lieutenants: Frederic Evans, R.A.M.C.(T.F.), William Jack, N.Z.M.C., Joseph (Prince) Mussanji Walugembe, Afr. Nat. Med. Cps.

Temporary Lieutenant Joseph A. Anastasi, R.A.M.C.

Miss Rose Govindarajulu, Lady Medical Officer, Mysore Maternity Hospital, Bangalore.

NAVAL HONOURS.

The following distinctions have been conferred in recognition of services during the war:

C.M.G.

Surgeon Commander Joseph Chambers, R.N., for valuable services as operating surgeon at the Royal Naval Hospital, Chatham, since December, 1915.

O.B.E.

Surgeon Commander Robley Henry John Browne, R.N., for valuable services as Principal Medical Officer on the staff of the Vice-Admiral Commanding the Battle Cruiser Force.

Surgeon Lieutenant Commander Charles Samuel Brewer, R.N.V.R., for valuable services at the dépôt for mercantile marine reserve ratings at Liverpool.

Surgeon Lieutenant Commander Paul G. Fildes, R.N.V.R., for valuable services on research work at the Royal Naval Hospital, Haslar.

Surgeon Lieutenant John Arnoux Prendergast, R.N., for valuable services in H.M.S. *Greenwich*, dépôt ship of the 14th destroyer flotilla.

D.S.C.

Surgeon Sublieutenant Annesley George Lennon Brown, R.N.V.R., for the gallantry and devotion to duty displayed by him on the occasion of the torpedoing of H.M.S. *Paxton* by an enemy submarine on May 20th, 1917.

FOREIGN DECORATIONS.

The following foreign decorations have been conferred for distinguished services rendered during the course of the campaign:

By the President of the French Republic.

Croix de Guerre.—Colonels: John D. Alexander, D.S.O., Harold V. Prynne, D.S.O., A.M.S., Robert P. Wright, C.M.G., D.S.O., C.A.M.C. Brevet Colonel (temporary Colonel) Henry E. Manning Douglas, V.C., C.M.G., D.S.O., R.A.M.C. Lieut.-Colonels (temporary Colonels): William Bennett, D.S.O., R.A.M.C., Longford Newman Lloyd, C.M.G., D.S.O., R.A.M.C., Horace S. Roch, C.M.G., D.S.O., R.A.M.C. Brevet Lieut.-Colonel (temporary Lieut.-Colonel) Elliott Beverley Bird, D.S.O., R.A.M.C.(T.F.). Majors (acting Lieut.-Colonels): Francis L. Bradish, D.S.O., R.A.M.C., Donald de Courcey O'Grady, R.A.M.C. Major George G. Greer, M.C., C.A.M.C. Captains (acting Lieut.-Colonels): William R. Gardner, D.S.O., R.A.M.C. (S.R.), Edward Phillips, M.C., R.A.M.C. Captains (acting Majors): Peter J. Ryan, M.C., R.A.M.C., J. R. N. Warburton, M.C., R.A.M.C.(S.R.). Captains: Robert Burgess, D.S.O., M.C., R.A.M.C.(T.F.), Charles Frederick Hacker, M.C., R.A.M.C., William John Knight, M.C., R.A.M.C. Temporary Captain (acting Lieut.-Colonel) Lawrence D. Shaw, D.S.O., R.A.M.C. Temporary Captains (acting Majors): Lewis Anderson, D.S.O., R.A.M.C., Trevor A. Lawder, R.A.M.C., Arthur J. Blake, M.C., R.A.M.C.(T.F.), Arthur W. S. Christie, R.A.M.C. Temporary Captain James C. Ogilvie, M.C., R.A.M.C., attached Border Regiment.

Médaille de l'Assistance Publique (en Argent).—Captain (acting Lieut.-Colonel) Joseph H. Ward, D.S.O., M.C., R.A.M.C.; Captain John K. Gaunt, R.A.M.C.; Temporary Captains Vivian Gray-Maitland, Allan D. Low, Walter J. Paramore, Robert Thomson, R.A.M.C.

By the King of the Belgians.

Ordre de Leopold.—*Commandeur:* Lieutenant-General Sir T. H. John C. Goodwin, K.C.B., C.M.G., Director-General, A.M.S. *Officier:* Brevet Colonel Sir Edward S. Worthington, K.C.V.O., C.M.G., R.A.M.C.

Ordre de la Couronne.—*Officier:* Major (acting Lieut.-Colonel) Thomas B. Moriarty, D.S.O., R.A.M.C.

By the King of Serbia.

Order of St. Sava, 5th Class.—Captain Fleet F. Strother Smith, I.M.S.

Cross of Mercy.—Captain (temporary Lieut.-Colonel) Sir Thomas Crisp English, K.C.M.G., R.A.M.C.(T.F.), attached R.A.M.C.

By the King of the Hellenes.

Greek Medal of Military Merit, 2nd Class.—Surgeon Commander Thomas W. Myles, R.N.

Dr. J. R. B. Dobson, late Captain R.A.M.C., has received the Médaille de Sauvetage en Argent, awarded by the Ministère de la Marine (French Republic).

MENTIONED IN DISPATCHES.

A series of special Supplements to the *London Gazette* were published on June 5th containing the names of officers, warrant and non-commissioned officers and men mentioned by the commanders-in-chief for services rendered in various theatres of war. The number of officers of the Army Medical Service and Royal Army Medical Corps, including Special Reserve and Territorial, and of the Colonial Medical Services, mentioned by Sir E. H. H. Allenby, Commander-in-Chief, Egyptian Expeditionary Force, is 184. Lieutenant-General Sir W. R. Marshall, Commander-in-Chief, Mesopotamia Expeditionary Force, mentions 68 officers of the A.M.S. and R.A.M.C. (Regular, Special Reserve, and Territorial), 32 of the I.M.S., and 7 of the Assistant Surgeons Branch of I.M.D. Lieutenant-General Sir G. F. Milne, Commanding-in-Chief, British Salonica Force, mentions 78 officers of the A.M.S. and R.A.M.C. (Regulars, Special Reserve, and Territorial) and 5 officers of the I.M.S. Lieutenant-General Sir J. L. Van Deventer, Commanding-in-Chief, East African Force, mentions 17 officers of the R.A.M.C., including Special Reserve and Territorial, 2 officers of the Indian Medical Service, 17 of the South African Medical Corps, 2 of the Uganda Medical Service, 1 of the East Africa Medical Service, and 3 of the Assistant

Surgeons Branch of the I.M.D. Major-General Sir L. O. FitzM. Stack, Acting Sirdar of the Egyptian Army, mentions 2 officers of the R.A.M.C. for services in connexion with the military operations in the Sudan; General the Earl of Cavan, Commander-in-Chief of the British Forces in Italy, mentions 44 medical officers; and Major-General W. E. Ironside, Commander-in-Chief, North Russia Expeditionary Force, mentions 7.

Canada.

ONTARIO MEDICAL ASSOCIATION.

THE annual meeting of the Ontario Medical Association in Toronto was attended by delegates from England; they included Sir Shirley Murphy, K.B.E., appointed by the British Government; Surgeon Rear Admiral E. R. Dimsey, D.S.O., R.N., by the British Admiralty; Sir StClair Thomson, by the British Medical Association; and Major Hey Groves, by the Royal College of Surgeons of England.

President's Address.

The president of the meeting was Dr. G. Stewart Cameron, of Peterborough, Canada, who gave an address, in the course of which he stated that 50 per cent. of the men examined under the provisions of the Canadian Military Service Act had failed to pass in the first class, the disabilities which prevented them from attaining the standard being in a large proportion of cases traceable to preventable causes. He urged that the public should be better informed on matters affecting maternity and child welfare, and should have a fuller understanding of the basis upon which the physician made his diagnosis. He spoke strongly on what he described as an organized assault by irregular practitioners, patent medicine manufacturers, and health cranks of one kind and another upon the medical profession, and called upon the State to exercise more efficient control. He also advocated the establishment of post-graduate courses. In this connexion Sir StClair Thomson took the opportunity of informing the public and the profession in Canada with regard to the Fellowship of Medicine, the emergency graduate course it had established in London this summer, and its scheme for the permanent establishment of courses in the future.

Sir StClair Thomson on Shakespeare's Medicine.

Sir StClair Thomson delivered an address at the conference on the medical lore of Shakespeare, who, he said, had an almost uncanny knowledge of the ills and needs of humanity out of all proportion to the wisdom of his time; the poet lived in a period when witchcraft was as firmly believed in as osteopathy was to-day, and potions, spells, charms, and incantations were as freely used as modern patent medicines, yet in spite of this environment of superstition he showed an understanding of the legitimate practice of medicine that was astonishing. His appreciation of the physician's need for taking notes was illustrated by reference to the Scottish practitioner who attended Lady Macbeth and took copious records of her ravings with which to refresh his memory while diagnosing her condition. Again, King Lear endeavoured to find a pathological reason for the ingratitude of his daughter. In King John's last illness fresh air treatment was used on the sinking monarch with excellent results, and the good leech in "The Comedy of Errors" must have had the true bedside manner—albeit he was an "irregular"—for upon visiting his patient for the first time he said: "Come, give me your hand and let me feel your pulse." Treatment by mental suggestion had also been thoroughly appreciated by the bard, who had said: "They'll take to suggestion as a cat laps milk." Finally Sir StClair Thomson quoted the famous speech of the melancholy Jaques describing the seven ages of man, and declared that it epitomized the whole gamut of life as truly and conclusively as any medical work full of long scientific phrases.

MEDICAL SCHOOL OF MCGILL UNIVERSITY.

Dr. S. E. Whitnall, who graduated M.B., B.Ch.Oxon. in 1908, has been appointed professor of anatomy, McGill University, Montreal, in succession to Sir Auckland Geddes, who has been appointed principal, and will, it is understood, take up the duties of that office next year. Dr. Whitnall is university demonstrator of human anatomy at Oxford, and holds a commission as captain R.A.M.C. Territorial. Dr. John Tait, who graduated M.D.Edin. in 1906 and D.Sc. in 1907, now lecturer on experimental physiology in the University of Edinburgh, has been appointed Drake professor of physiology in McGill. The appointment of Professor Adami to be principal of the University of Liverpool has created a vacancy in the chair of pathology at McGill, so that when the medical school begins its work next session there will be new professors in the three chief subjects of the institutes of medicine.

England and Wales.

THE WELSH UNIVERSITY AND THE WELSH NATIONAL MEDICAL SCHOOL.

THOUGH nothing has yet been definitely decided, considerable progress has been made by way of discussion in arranging for the reorganization of the University of Wales. Particular attention has been given to the position of the Welsh National Medical School. The Royal Commission recommended that the School of Medicine should be separated from Cardiff University College and erected into an independent constituent college of the university. The University Court, however, desires to preserve the organic connexion which has hitherto subsisted between the two institutions. Principal Griffiths before laying down his office put out a statement on the future of the medical school, in which he gave an account of its short history. It was opened in 1894; for twenty-three years it has provided instruction in the first three years of medical study and during the last ten years post-graduate tuition for the diploma in public health. In 1906 the University of Wales obtained a supplementary charter authorizing it to confer degrees in medicine, and through the generosity of local benefactors institutes of physiology and public health, with fine laboratories, are being established in Cardiff. The conditions of these benefactions supplied Principal Griffiths with arguments for his conclusion that the medical school should be a part of the Cardiff College, but his argument rests mainly on larger considerations. In the first place he insists that one of the highest functions of a university is to help its students to prepare themselves for social life, and from this point of view the advantage of the mixing of those who are entering upon different professions and paths of life is obvious. Again he observes that the union between medical progress and pure scientific investigation is becoming closer with every succeeding year; to ensure advance research must be founded on this union, and for this the constant intercourse of colleagues is essential.

"Men," he writes, "cannot make real advance in watertight compartments. From my own experience at Cambridge I can testify to the value of such intercourse, and this is likely to be far more intimate when all the members of the staff feel that they are united in one body; that they can claim, not only as a privilege but as a right, the assistance of their colleagues; that, in fact, they are members of one regiment rather than of different armies. All who have had the interest of the medical school at heart have laid emphasis on the importance of its becoming the centre of research. Its proposed severance from our scientific departments, so far from promoting, will be a serious impediment to advance."

It is proposed that the College Council, subject to the supremacy of the University, shall be the chief governing authority of the School of Medicine, but that it shall delegate to the Board of Medicine wide administrative and executive functions and powers. The constitution of the Board of Medicine under this scheme would be almost identical with that proposed by the Royal Commission, but two additional representatives would be given to the University of Wales, and two representatives to the Cardiff and County Public Health Laboratory Committee, owing to the close co-operation of this committee in the work of the department of public health and school of preventive medicine. Provision is also made for the representation of county councils and of women. The faculty of medicine would be represented on the Board of Medicine by three members out of a total of thirty-six, but the council of the University would have four members, and the council of Cardiff College ten; the council of the colleges at Aberystwyth, Bangor, and Swansea would have two each. The faculty of medicine would consist of the professors of

(1) medicine, (2) surgery, (3) pathology and bacteriology, (4) obstetrics and gynaecology, (5) preventive medicine, (6) pharmacology, (7) anatomy, (8) physiology, and (9) physics, chemistry, zoology and botany. There would also be one professor in one of the four last-named departments from each of the colleges at Aberystwyth and Bangor.

HOSPITAL FOR DISABLED SOLDIERS AND CIVILIANS.

The mansionhouse of Rookwood, which stands in a park of some thirty acres, on the outskirts of Cardiff and Llandaff, was opened last week as a hospital for disabled men, by Mrs. Lloyd George, who said that it was proposed to proceed at once to provide accommodation for 200 orthopaedic cases among pensioners, but it was hoped that in the future the institution would become a valuable adjunct to the Welsh national medical school. The estate is the gift of Mr. and Mrs. Laurence Philipps, and Colonel Sir John Lynu-Thomas, expressing the thanks of the Welsh nation to them, said that while the first object of the place was for the benefit of disabled pensioners it was hoped that its usefulness would presently be extended to civilians.

Major-General Sir Bertrand Dawson spoke strongly in support of the policy of the scheme. It showed, he said, vision, generosity, and the courage to achieve. Its actualities were great, but it was the beginning of a wider scheme which would be an example to the rest of the country. He looked forward to the erection there of a maternity centre, a school clinic, and a building for physical culture, and what they were just beginning to think of—a hospital for the early treatment of cases. The needs of the nation had outgrown the hospital provision. No one building a hospital to-day would dream of putting it in the centre of a great city. So overburdened were the hospitals that no further work could be put upon them, and wisdom was shown there in making separate provision for the treatment of war pensioners. With a waiting list of patients extending over three or four months before they could be treated at the hospitals the state was suffering a great loss, for prompt treatment of cases in their early stages meant early recovery before the complaint was able to develop.

Scotland.

STILLBIRTHS AND NEONATAL DEATHS IN EDINBURGH.

IN the JOURNAL for May 3rd (p. 560) the stillbirths statistics for Edinburgh for the months January, February, and March were given. The stillbirths rate for these months was 30.43, 18.18, and 37.03 per 1,000 respectively. The health authorities have again furnished our correspondent with the figures for the past two months. The number of births notified in Edinburgh during April was 432; of these 15 were stillbirths, giving a rate of 32.87; whilst in May the births, including 21 stillbirths, numbered 519, showing therefore a stillbirths rate of 40.46. Evidently the stillbirths rate tends to vary considerably from month to month, a result possibly due in part to the comparatively small numbers dealt with. As was stated before, the numbers are obtained from the notificational returns, and will not, therefore, be found to correspond with the registrational numbers of births for these months. The officials in the Public Health Office had a pleasant surprise when they came to calculate the neonatal death-rate for May. There were only five deaths during the month of infants under one month in age, and this gave a neonatal rate of 10.5 per 1,000 live births. The neonatal death-rate in the corresponding month of 1918 was 44.8 per 1,000. For the five past months the neonatal rate in 1918 and 1919 is given below in tabular form.

Neonatal Death-rate in Edinburgh.

	In 1918.	In 1919.
January	37.2	67.4
February	41.6	62.3
March	35.3	38.9
April	31.5	28.1
May	44.8	10.5

The neonatal rate for the whole of 1918 was 40.3. Obviously this rate, like the stillbirths rate, varies much in successive months.

HIGHLANDS AND ISLANDS MEDICAL SERVICE BOARD.

The annual report (the fifth) of the Highlands and Islands Medical Service Board has just been issued; it deals with the year 1918. The Board states that the scarcity of medical practitioners and nurses increased during 1918, and the effect of demobilization was not felt before the end of the year. In the last quarter influenza had become prevalent, and at no previous time had practitioners conducted their work under greater difficulties. A number of them had, through illness, to give up their duties entirely for a time, and many more endeavoured to cope with the enormous amount of additional work up to the verge of complete breakdown. The Board takes the opportunity "of expressing their appreciation of the high sense of duty displayed by the doctors and nurses in the Highlands and Islands in circumstances of great difficulty." The Board was able to provide assistance in a number of cases during the illness of the doctor, but the demands for medical attention and nursing were not less insistent in other parts of the country, and it was a matter of much difficulty to make even emergency arrangements.

The scheme for a medical service at modified fees to certain classes has been in operation for three years throughout the Highlands and Islands, save in a few parishes. The essential point is that the fee paid by the patient shall be the same whatever the distance from the doctor's place of residence. The report states that the scheme is undoubtedly fulfilling the purpose for which it was designed, bringing an adequate medical service within the reach of persons of limited means, and providing reasonable remuneration for the medical practitioners. That persons eligible to participate in the benefits of the scheme are increasingly taking advantage of it appears to be shown by the statistics for 1917–18. Taking the whole area the number of miles per practice travelled showed in 1918 an increase of 6.6 per cent. on 1917, and the number of visits an increase of 20.8 per cent. In 1918, as compared with 1917, there was a slight decrease (1.4 per cent.) in the visits and travelling in respect of Poor Law patients, coinciding with a diminution in pauperism of some 6 per cent. Visits to patients treated under arrangements with various public bodies such as school boards, public health authorities, and the lighthouse commissioners, also showed a slight decrease, but there was a slight increase in visits and travelling for insured persons and club patients. There was a marked increase, of over 4 per cent., in travelling and visits to patients coming within the scope of the Board's scheme, the nature of which has been noted above, and a corresponding decrease in respect of purely private patients. On this point the report contains the following:

> This adjustment as between "Board's" and private patients is due largely to a new classification of certain patients following on the increase in private fees recently adopted by many practitioners. Persons of the classes defined in the Board's scheme of modified fees residing near the doctor were usually attended at low uniform fees before the introduction of the scheme. They did not participate in the benefits accruing under the scheme to patients living at a distance, and consequently were classified as private patients. The fees chargeable to them have not been increased, but in virtue of that fact they have now come within the category of "Board's" scheme.

After reviewing the various forms of practice the Board makes the following statement:

> On a consideration of the figures for 1917 and 1918, it is, the Board thinks, safe to say as regards the work of the practitioners with whom they have entered into agreements—that is, practically all the members of the medical profession in the Highlands and Islands outside the Burgh of Inverness and the Mainland District of Orkney—that, on an average, only 20 per cent. of the total travelling and 30 per cent. of the total number of visits are applicable to private practice. The balance (80 per cent. of the travelling and 70 per cent. of the visits) is under the auspices of some form or other of public service. In other words, over the *whole* area administered by the Board, about four-fifths of the entire medical service rendered to the population is subsidized or maintained from public sources. In many parts of the area the proportion is greater. When it is recalled that within the Highlands and Islands there are certain districts that are really, as regards general economic conditions, on the level of the Lowlands, it can be readily realized that in some of the poorer districts the amount of purely private practice is almost negligible. This is not a condition that has arisen through the operation of the Board's scheme of modified fees. On the contrary, one effect of the scheme has been to render it possible for practitioners assisted by the Board to develop their purely private practice to the utmost. Nevertheless the

information supplied to the Board and summarized in this report shows clearly that the volume of practice provided or assisted from imperial sources or from local public funds constitutes by far the larger proportion of the doctors' work and occupies the greater part of their time. Moreover, the figures for the two years, which the Board are now in a position to publish, indicate clearly that the work applicable to what may be described as "appointments" is increasing, and that there is no corresponding increase in purely private practice. In a sense it is true that, in the Highlands and Islands at least, there tends to develop a form of a medical service which, being for the most part a spontaneous growth, combines in certain districts the efficiency of a private or competitive service with the stability of an official service provided by the State. In single practice areas, where the competitive element is eliminated, the form of service approximates more closely to that of an official service resting entirely on public appointments; but there is in every practice a proportion—even if in some instances it is a small one—of private practice; thus in most cases the doctors' emoluments depend to some extent upon this private practice, and also to a much larger extent upon the volume of the work actually done by them for the Board.

With regard to the remuneration of practitioners, it is stated that the total ordinary grants under agreements with practitioners amounted in 1918 to £21,900, and under the supplementary scheme in respect of war conditions to £10,000, making a total of £31,900. The Board repeats the statement made in its report for last year, that it may in the future be necessary to make certain modifications both as regards the classes eligible to participate in the Board's scheme of modified fees, and as regards the area in which the scheme should operate. Modifications, the Board considers, will be necessary in the near future unless additional Exchequer grants can be made available for medical and kindred services in the Highlands and Islands.

With regard to the nursing service, the Board again expresses the view that it should be organized on a county or county district basis, in order that there may be provided under one central organization for each county or district nurses sufficient in number and with the necessary qualifications to enable them to give assistance in specialized schemes of public welfare as well as to undertake the general nursing work in their areas. The transference of the functions of the secondary education committees and the old school boards to the new education authorities set up by the Act of 1918 will, it is believed, help the unification of the nursing service. Grants are made by the Board to thirty-eight nursing associations; the number of nurses employed was 98, of whom 49 were fully trained. These receive an inclusive salary of £130 or £135; the salaries of midwives and nurses with intermediate qualifications have been raised from about £50 to an average of about £80. The Board makes certain grants towards the maintenance of hospitals; the total so expended in 1918 was £338. Expenditure to the amount of about £60,000 is in contemplation for the enlargement and improvement of hospitals, the provision of ambulance services, and the erection or improvement of houses for doctors and nurses.

Correspondence.

PORTRAIT OF SIR CLIFFORD ALLBUTT.

SIR,—The long lists, published during the last few weeks, of subscribers to the Fund for presenting Sir Clifford Allbutt with his portrait prove that the profession welcomes the opportunity of testifying the esteem and affection with which he is regarded.

It had been intended shortly to close the Fund, but I have been asked to keep it open until July 31st. I would request all those who wish to take part in the presentation, but have not yet notified their intention, to send their subscriptions without delay. The amount is limited to one guinea. Cheques and postal orders should be made payable to the "Sir Clifford Allbutt Presentation Fund," crossed London County, Westminster, and Parr's Bank, and addressed to the Treasurer of the British Medical Association, 429, Strand, London, W.C.2.

I may add that it is intended after the portrait in oils has been painted to commission a mezzotint engraving from it which subscribers to the Fund will be able to purchase for their own collections.—I am, etc.,

G. E. HASLIP.

British Medical Association, 429, Strand, W.C.2.

SUDDEN DEATH UNDER AN ANAESTHETIC.

SIR,—Credit is due to Dr. H. S. Gabbett for his endeavour to elucidate the grave problems that demand full and careful consideration in regard to (1) the dangers of anaesthetics in tonsil and adenoid operations; (2) the relative dangers of tonsillotomy and complete enucleation. The discussion elicits the fact that chloroform anaesthesia is still being employed for these operations, and we feel convinced that the simplest way of persuading doubting anaesthetists of the suitability of open ether in such cases is to induce them to employ the two-bottle method—the Bristol method, as it has been designated—in which chloroform and ether are used from separate drop bottles. In our hospital—the Bristol Royal Infirmary—this procedure led to the adoption of open ether as far back as 1896, as reported by one of us (A. L. F.) in a paper on open ether read at the meeting of the British Medical Association in 1910 (BRITISH MEDICAL JOURNAL, September 17th, 1910, p. 767). One point which was then particularly emphasized was the diminished tendency to haemorrhage with "open ether" as compared with the "closed ether" anaesthesia. This two-bottle method is referred to in Sir F. Hewitt's *Anaesthetics* (fourth edition, p. 506).

We have been fortunate in having no fatality in the course of a very large number of cases of tonsillotomy, enucleation of tonsils and adenoid operations, but prior to the routine adoption of ether, either as the sole or at least the predominant anaesthetic, the use of chloroform was at times the cause of great anxiety.

We have advocated the adoption of the open ether method for years as in our opinion the safest and most efficient prolonged anaesthetic, especially in the operations now under discussion, because we feel that there are dangers which are peculiar to operations on the upper respiratory tract, apart altogether from the obvious dangers from blood clot or pieces of removed tissue passing into the glottis. We refer to the apparent cardio-inhibitory influences of excessive stimulation of the nasopharynx, which we believe due to communications in the medulla between the gelatinous substance of Rolando and the motor nucleus of the vagus (see Cajal's section illustrated in *Rhinology*, p. 35, Watson-Williams). For this reason a cautious spraying of the nasal passages with a weak solution of cocaine lessens the discomfort, and only adds to the safety of the subsequent anaesthesia. Though not essential, a hypodermic injection of $\frac{1}{150}$ grain of atropin sulphate a half to one hour before the anaesthesia lessens the secretion of mucus and the stimulation of the vagus endings and undoubtedly aids the operator and the anaesthetist. We find $\frac{1}{150}$ of a grain, suggested in Mr. Tilley's letter, an unnecessarily large dose.

The importance of the careful selection of the anaesthetic for operations for tonsils and adenoids is emphasized by such figures as were collected by one of us (A. L. F.) and reported in the *Proceedings* of the Royal Society of Medicine, December 5th, 1913, showing that of 700 inquests on "anaesthetic" deaths no less than fifty-six were in cases of tonsils and adenoids.

Finally, we may be allowed to state our conviction that in skilful hands there is no greater danger in complete enucleation than in large but incomplete removal of tonsils unless the conditions are exceptional. It is obvious that in cases where previous disease has caused deep and firm adhesion of a tonsil to the tissues in which it is embedded, and where a complete removal requires careful dissection, there is greater danger of injury to the fauces and of troublesome haemorrhage; and in haemophilic patients the larger vessels divided in enucleation are more difficult to control than those divided in removing a slice of tonsil. But with the great majority of cases enucleation with a guillotine may be as safely and quickly performed as taking a slice off the projecting tonsil, which procedure is the right one to adopt in any particular case, although it is, of course, a matter which does not concern the discussion so ably raised by Dr. Gabbett.—We are, etc.,

P. WATSON-WILLIAMS,
ARTHUR L. FLEMMING.

Bristol, June 24th.

SIR,—In the interesting correspondence in the JOURNAL of June 21st, arising out of Dr. Gabbett's note in the JOURNAL of June 14th, three features are of outstanding interest.

The first is that the dangers of light chloroform anaesthesia are now becoming generally recognized. For so long we were obsessed with the idea that fatalities only occurred from overdosage, those occurring in patients lightly under chloroform being attributed either to the sudden inhalation of an overwhelming dose during struggling, or to the absorption of such from vapour stored in the lungs in cases of respiratory obstruction. It is to be hoped that this correspondence will meet the eye of, and duly impress, those who have not as yet accepted the modern view. There are still many who believe that with chloroform safety lies in light anaesthesia. I think, however, every practical anaesthetist would admit that the contrary is the case.

The second point is the recognition given by Dr. Rood to the explanation of these fatalities furnished by the experimental work of Dr. Goodman Levy. This recognition will, I trust, soon be universal, and every surgeon and anaesthetist be guided by the principles laid down by him in his contribution to *Heart* (vol. iv, No. 4) and various other papers. Dr. Levy has one advantage over other research workers in this field: he was for a period a practical anaesthetist, being a colleague of mine at the North-West London Hospital.

The third point is the support given by leading authorities on tonsillectomy to the revival of ether induction in these operations. Years ago, when tonsillotomy rather than tonsillectomy was the operation in vogue, the gas–ether–chloroform (Junker) sequence was the common anaesthetic procedure and served very well. With the advent of the more deliberate operation surgeons demanded a much deeper anaesthesia, and chloroform, only, became customary. The method at present advocated is the same in principle as the old one, though carried out with modern refinements and alterations. It has the same advantage of getting rid of all danger during the induction period, but, like it, during the later stages of the operation the dangers of light chloroform are not always entirely eliminated, much if not everything depending on the ability of the anaesthetist.—I am, etc.,

London, W., June 21st. G. A. H. BARTON.

SIR,—Your correspondents upon this subject agree that open ether is a suitable anaesthetic for the operation of enucleation of the tonsils. By all means let ether be employed whenever suitable, on the score of safety.

Mr. Waugh's series of 18,000 operations under very deep chloroform anaesthesia, with a single death, described as due to exhaustion, is a testimony to the truth of my contention that full chloroform anaesthesia is free from the risk of sudden cardiac failure, and that, furthermore, fatalities from overdosage are of the rarest occurrence; syncope from overdosage is not fatal if promptly dealt with.

The extreme depth of anaesthesia employed by Mr. Waugh for special technical reasons is not requisite generally in order to guard the heart against sudden failure; it is merely necessary to maintain the anaesthesia continually at what is known as the surgical degree. Mr. Waugh says: "To obtain deep chloroform anaesthesia the dangerous zone of light anaesthesia must always be traversed. Modern research has shown how uncontrollable this danger is." "I am afraid I am not aware of the research in question; my own researches show that the danger *is* controllable, and surely Mr. Waugh's own statistics show that the danger of induction was controlled in his series of 18,000 cases. For the safe induction of chloroform anaesthesia it is again only necessary to administer the vapour continuously and of sufficient strength to get the procedure expeditiously performed. This is a common experience in experiments upon cats, which are otherwise peculiarly liable to sudden cardiac failure. I do not think any useful purpose can be served by exaggerating the danger associated with the use of chloroform.

I rather doubt if the administration of a mixture of chloroform and ether can be made perfectly safe, except when the chloroform preponderates. I think Mr. Tilley takes a certain risk in following up an induction by open ether with a relatively short administration of chloroform from a Junker's inhaler—why not follow on with ether vapour pumped through a tube, if a tube is necessary?

Finally I may again emphasize the value of such clinical records as that afforded by Dr. Gabbett. For every such case reported a hundred are unreported and lost to medical science. Perhaps, some day, we shall see a compulsory clinical report substituted for the effete coroner's inquest.—I am, etc.,

London, W., June 23rd. A. G. LEVY.

THE TREATMENT OF THE NEURASTHENIC PENSIONER.

SIR,—In your issue of May 31st Dr. James M. Rutherford suggests an alternative method to hospital treatment for the neurasthenic pensioner. On looking closely into his scheme it appears to have several faults:

1. Dr. Rutherford suggests that in different areas a staff of physicians familiar with the treatment of war neuroses should be appointed to treat the pensioner privately. I fear that with the present number of neurasthenics in England sufficient medical men familiar with war neuroses could not be found.

2. He also suggests that the patient's mental symptoms should be analysed, and further suggests a few visits at intervals of a week or two. I am afraid many visits would have to be paid, and much oftener than at intervals of a week or two, if mental analysis is to be successful and completed in a reasonable time.

3. Contrary to Dr. Rutherford's experience, I have found in boarding neurasthenic pensioners that very few are averse to hospital treatment.

4. I have been in charge of this institution for neurasthenic pensioners since it was opened early last year, and I have found the results most encouraging; the patients are happy and contented. Dr. Rutherford's "important point" can be carried out—that is, no suggestion of military conditions.

In hospital there is no time lost on the part of the doctor or patient travelling one to see the other. The doctor is constantly on the spot to hear his patients' trouble and advise them. He can see them daily, and certainly more often than at intervals of a week or two. He can show them similar cases to their own, recovering or recovered; and that most important point in good results can be obtained which cannot be obtained from Dr. Rutherford's scheme—namely, a curative atmosphere.—I am, etc.,

A. D. MCMULLAN,
Medical Superintendent.

Leicester Frith Home of Recovery for Neurasthenia,
Leicester, May 31st.

ENCEPHALITIS LETHARGICA.

SIR,—Major Brasher and his colleagues, in their interesting paper upon two cases of encephalitis lethargica (BRITISH MEDICAL JOURNAL, 1919, i, p. 733), say that it does not appear that any connexion was observed (in Vienna, in 1917) between von Economo's cases of "encephalitis lethargica" and an epidemic of influenza. The fact is that "grippe" was prevalent in Vienna at the time that von Economo's cases were observed, but this "grippe" was decided not to be "influenza" because Pfeiffer's bacillus was not found (cf. *Daily Review of the Foreign Press: Medical Supplement*, 1918, July 1st, p. 221). In the same way the epidemic of grippe that preceded (and accompanied) the poliomyelitis in the United States during 1916 was said to have been a "pseudo-influenza" (Capp and Moody and others, *Journal American Medical Association*, 1916).

As a matter of fact, quite a large number of the cases that occurred in London in the early part of 1918 manifested an initial stage that was clinically indistinguishable from influenza. There are, indeed, for these cases, three types of onset. In one an early "influenza" is separated by a distinct but variable interval from the onset of "nervous" symptoms; in another the "influenza" runs *into* the "nervous" stage; in the third the "nervous" symptoms occur without obvious precedent illness. Laborde, more than fifty years ago, recognized much the same kind of happening in relation to "infantile paralysis"; and, as all the world knows, Draper and others have distinguished similar "types" of onset in "poliomyelitis."—I am, etc.,

London, W., June 16th. F. G. CROOKSHANK.

INFECTIVE CATARRHS—SO-CALLED "COLDS."

SIR,—In connexion with the question of "the common cold," the following facts may interest your readers. During the past few years I have been giving empirical vaccine treatment for various pathological conditions in addition to those for nasal and bronchial catarrh. I have found that when giving a mixed autogenous vaccine made from the nose or throat for any cause the patients were protected from "colds" during, and for a variable time after, the course of injections. Further, during last winter six patients who were having vaccine injections at regular intervals—two for rheumatism, two for neuritis, one for subacute nephritis, and one for toxic heart symptoms—all except one were in close contact with influenzal cases, but not one of them took the disease.

Whether the explanation is symbiotic, or whether the mucous membrane is made more susceptible to catarrhal infection by the presence of other organisms, a satisfactory line of treatment is obvious—that is, kill the organisms inhabiting the respiratory tract. Personally I think the best way of doing this on a large scale would be to institute chloramine vapour rooms, public and private, where all patients could attend at such intervals as might be found necessary.—I am, etc.,

Oxford, June 21st. HELEN G. LEYTON, M.D.

THE RURAL PANEL DOCTOR.

SIR,—The rural practitioner has little opportunity of expressing his views on professional matters except through the medical press. Owing to his isolated position and the distances to medical meetings it is impossible for him to take a useful part in the discussions of medical problems, with the result that the rural practitioner has little influence in medical politics and the work is dominated by the town practitioner, and hence it is that our county Medical Committees do little to help the rural panel doctor.

I read that some of the county Medical Committees have recommended the acceptance of the increased income limit for insured persons ordered by the powers that be. It is to be hoped that the elections of Panel Committees now going on will infuse new blood into these fatigued bodies who seem ever ready to adopt every suggestion made by the insurance authorities.

The suggested increase of the income limit will in course of time practically destroy private practice in country districts. Limiting the increase to those workers already insured whose income has increased beyond the present limit, will cause so much dissatisfaction amongst the new workers of the same income that it will be soon abandoned, especially as the friendly societies are always eager to get the better class of workers into their net, and insurance authorities are always ready to assist them without considering the welfare of the medical profession. We should never forget there will be no going back, the income limit will never be reduced, the increased limit will be thrown open to all classes, those voluntarily as well as those compulsarily insured, and with the increased cost of private work in the near future there will be a marked increase of voluntary contributors for the sake of medical benefit, leaving little for the country doctor but panel work.

If we are compelled to accept this 56 per cent. increase in the insured income limit the workman ought to be compelled to pay a corresponding increase in his yearly contribution. He now pays 17s. 4d.; he would then pay 27s. With his present payments 9s. is set aside for medical benefit; at the same proportion of the increased contribution 14s. would be allotted for medical benefit. The increased cost of living and the greatly increased cost of working entitles us to expect at least this amount. Whatever capitation fee is agreed to it ought to be a minimum one, and avoid a repetition of our experience in 1917, when we were guaranteed 9s. and received 7s. per head, so that those of us who work in the country and have to live on small incomes may know beforehand what minimum payment we will receive for our panel work.

The capitation fee should never be at a flat rate for town and country work, for the country doctor should be fully recompensed for the far greater proportionate expense in doing his work, and also be allowed for the longer time spent in visiting his patients.

When the time comes for signing agreements, why should we not be allowed to have a definite agreement, and given a time limit if it is thought necessary, instead of a one-sided contract whereby the insurance authorities are at liberty, at any time, to issue new regulations which may alter or increase our work, and give us five or six weeks to decide whether we relinquish what may be a large portion of our income?—I am, etc.,

Beckington, June 13th. W. G. EVANS.

RADICAL CURE OF FEMORAL HERNIA BY THE INGUINAL ROUTE.

SIR,—I am very glad that Mr. Percival P. Cole has called attention (p. 763) to this method of radical cure of femoral hernia by the inguinal route. I have used it for many years, and my experience has been the same as his—that it appears to be an unfamiliar method to most people. I expect it is many years since Mr. Cole read *Aids to Surgery* (if ever), but he will find it advocated there.

My only regret in reading Mr. Cole's description is that in describing the passage of the sutures he says that below they "pass through the posterior thickened margin of the femoral ring—Cooper's ligament." Now Cooper's ligament is a firm dense white band, and is a very definite structure, and should be seen when passing the sutures, whereas, if this is not definitely laid down, any one unfamiliar with the operation and doing it from a description would probably pass his sutures through the fascia of the pectineus, as it really forms the posterior margin of the femoral canal. I am sure Mr. Cole will agree with this.—I am, etc.,

London W. June 23rd. JOSEPH CUNNING.

INCOME LIMIT FOR INSURED PERSONS.

SIR,—I have read the account of the deputation on June 2nd (BRITISH MEDICAL JOURNAL, June 7th, p. 715), and I am convinced that abandonment of the income limit to non-manual workers would be a profound mistake, and a calamity to the medical profession. The only attitude to adopt is to resist by all means in our power the proposed increase, because if once raised it will never be lowered again, no matter how the value of money falls. With the proposed inclusion of dependants it means a State service to a very large class of the community. Such a diminution of private practice is a serious consideration for the medical profession, affecting as it does all grades. To the panel practitioner it means a diminution of private practice, and to the non-panel man it means a large proportion of his practice being filched from him by the State, and without compensation. In the Government's explanation the difference between the manual and the non-manual worker is stated to be merely technical, but in the great majority of cases the non-manual worker is paid a yearly salary, whereas the manual worker is paid by the hour, and absence from work means absence of pay. It is also stated that the non-manual worker loses all benefits if his income exceeds £160 per annum; I understand that this is not the case; such a person may continue in insurance by merely paying his own and his employer's contribution, namely, 7d. a week; by paying an additional 4d. a week he can remain under the Insurance Act.

I entirely fail to see how large bodies of employers, trade unions, and many important societies are pressing for this increase. In the case of employers there is no reason why they should complain of being relieved of the necessity of paying 4d. a week for each employee, and from a wide personal acquaintance with the employees I know there is deep discontent with the present form of the Insurance Act.

As to the further argument—that few people will be included who are not already insured—this I am sure is wrong. Increases in salaries are not so general as represented, and the ultimate result will be an increase in the number of insured persons who should never be under this Act.

Lastly, it is a striking display of Government methods when one department opposes any heightening of the incidence of income tax, and another is extremely solicitous to raise the income limit of insured persons owing to

a cause which should operate, if at all, in both cases—namely, the lessened purchasing power of money.—I am, etc.,

Newcastle-on-Tyne, June 17th. JAS. HUDSON.

INSURANCE TERMS AND CONDITIONS.

SIR,—Having attended meetings in connexion with impending changes in professional affairs, the things which have made the most impression upon me are the apathy of members, as shown by the small numbers present at the meetings, and the marked revolutionary, almost Bolshevik, nature of the schemes suggested.

Not being in general practice, but with many friends who are, it seems to me hard that a man who, either because he is popular or energetic, has obtained a large panel practice, should have his lists limited, the assumption being that the men who wish to restrict their neighbours' lists have not been so successful themselves. After all, the panel practitioner works for what he gets, and has either bought his practice or built it up by hard work. Are these men to be compensated for the loss of capital involved? True, they can get out of the difficulty by taking an assistant or partner, or by reducing their lists for the benefit of those with smaller lists.

Why should men be encouraged to settle in any area by guaranteeing them a living for a couple of years, when the other men in such areas have earned their right to practise there either by starting from nothing and waiting for practice, or by buying a practice?

Why should the present income limit be raised for panel patients? Granted that money has only half the purchasing power it had four years ago; that should be rather an argument in favour of doubling the panel doctors' remuneration than for extending the benefits of the Insurance Act to others than those already insured. If the benefits are to be extended to other people, the whole thing resolves itself purely into one of remuneration, which is the one thing apparently that cannot be talked about at any meeting. Questioners are told that all that will be settled later; but have members forgotten 1913?

The last point is that of special treatment for insured persons. The Act without provision for special work is defective, and clinics should be open for insured persons in the evenings, so that a day's work is not lost to the worker. For six years the maligned specialist has done the bulk of this work for nothing in the hospitals, while the panel doctor has drawn remuneration for looking after the patient. Now that there is a chance of such work being paid for, it is suggested that these benefits be extended to other sections of the community, and that the panel practitioner shall have the opportunity of participating in the treatment, in addition to his ordinary panel work. Nothing has hindered him from so doing before; he had the patients, and could have done his own refractions or operative work; and there can be no logical objection to any one practising a specialty, provided he can do the work. Let them be specialists in the sense that they confine their practice to one thing—to the exclusion of general work, which is what the general practitioner demands at present of the men he sends his work to. They cannot expect to have it both ways, or they may find Nemesis overtaking them in the shape of the present oculist or laryngologist, whose practice has been thus taken from him, being compelled to go on the panel for general work in a district where they have invested money in practices, the newcomer having an income guaranteed at their expense for a couple of years.—I am, etc.,

London, W., June 20th. SYDNEY TIBBLES.

SIR,—I should like to say that I am heartily in accord with the opinion expressed by Dr. Picton in his letter on pp. 782 and 783 in your issue of June 21st, that the British Medical Association and the Commissioners appear to be working together far too harmoniously. I attended a conference at Plymouth on June 20th to discuss M. 25 under the guidance of the Medical Secretary of the British Medical Association and a Commissioner; and I am compelled to say that as a result of what I heard at that meeting I am more than ever suspicious of the manner in which the interests of the profession are being safeguarded.

Personally I am of the opinion that until the profession can approach the Government as a strongly organized trade union we shall continue to be treated with the contempt that has been meted out to us in the past; and I consider that the sooner the profession becomes a trade union the better.—I am, etc.,

Bere Alston, June 23rd. HORACE BROWN.

SIR,—I wish to add my protest to those against the proposals outlined in M. 25, and to the whole tone of the report. The outstanding feeling after perusing it is that we are being absolutely given away by our Association, which, instead of working and holding out for the rights and privileges of its members, is, through its Insurance Acts Committee, apparently agreeing to anything the Government or Commissioners may propose.

All through the report it seems as though the Commissioners' contentions and points of view are supported and upheld and those of the profession ruled out. Who is going to work this scheme—the Insurance Acts Committee or the practitioners? More work in the shape of reports, medical histories, etc., is calmly accepted, more dictation as to whether one shall take midwifery and surgery, more inroads on one's cherished hours of leisure. We are not to be absent from our surgeries without providing a deputy, and, generally speaking, we are to hand ourselves over body and soul to the other party to our agreement, who is still to be our judge.

Is it any wonder members are joining other organizations in the hope of obtaining some help and protection? Personally, I feel I am helping my own undoing by continuing a member of the British Medical Association, and I know I am not alone in thinking so.

Is there to be nothing but a feeble protest, and then, apparently, agreement, *re* raising the income limit for insured persons? Little by little all our private work is to be filched from us, and we are to be cramped and hampered in our work by onerous regulations, restrictions, and dictation, and finally, I suppose, to be nationalized and driven into being servants of a vast bureaucratic machine. Truly an enticing future.

Is it too late to make an appeal to our Association to think and act in the interests of us its members, and through us the wider interests of our patients?—I am, etc.,

Monton Green, June 15th. ALFRED M. BILLINGS.

SIR,—As delegates of the London Panel Committee we attended the conference called by the council of the Medico-Political Union on June 24th, with the object of discussing "the great changes in panel practice foreshadowed in M. 25 as issued (*sic*) *by the Commissioners* and the Insurance Acts Committee of the British Medical Association."

At the outset the chairman, Dr. F. Coke (the President of the Union), made the announcement that the conferences of practitioners called by the British Medical Association to discuss M. 25 were only allowed to discuss the summary, and later he made the extraordinary statement that the Insurance Acts Committee had discussed only the summary of M. 25 (their own report).

On the first point on the agenda—namely, "the general nature and purpose of the report," we endeavoured on behalf of the London Panel Committee to clear up these misconceptions and misrepresentations. We asked how the council of the Medico-Political Union could consistently call a conference to discuss M. 25 when the Union, at the annual meeting on June 12th, had prejudged the whole position in adopting the following resolution:

> That it is not to the interests of the members of the Union to accept any agreement based upon the Report M. 25 of the Insurance Acts Committee of the British Medical Association,

and at which meeting the secretary pointed out very pertinently, in answer to an inquiry, that the council of the Union were bound by this resolution, but not bound by anything that took place at the conference on June 24th (vide *Medical World*, June 20th, p. 521).

As no explanation was forthcoming, and as we were ruled out of order, though discussing the nature and origin of M. 25, we considered it futile to remain in the conference. The proceedings had been prejudged, and we felt that we could not further compromise our Panel Committee.—We are, etc.,

B. A. RICHMOND,
H. G. COWIE.

London, W.C., June 24th.

MEDICAL DEMOBILIZATION.

SIR,—Since you published a letter from me on June 7th I have received a good many communications from officers who are suffering from prolonged detention. Perhaps the most striking instance is that of a Territorial R.A.M.C. officer, aged 45, who has served since 1914 and is still in France, presumably because, having lost his practice, he has been considered as having no special claim for release.

I should suggest that the Secretary of State be asked in the House of Commons for a return showing the number of temporary S.R. and Territorial medical officers still employed abroad that we may know what the extent of the grievance is. I personally cannot form an estimate, but if the total number is small it ought to be fairly easy to deal with the matter, and if it is large obviously some remedial measure is urgently required.—I am, etc.,

London, W. HUGH THURSFIELD.

A PLEA FOR A "REFERENDUM" IN IMPORTANT MATTERS AFFECTING THE MEDICAL PROFESSION AND THE MINISTRY OF HEALTH.

SIR,—Numerous meetings are now being held by the Branches of the British Medical Association to discuss the future of the medical profession and the Ministry of Health. These meetings are seldom attended by as many as a third of its members, and therefore do not properly represent their respective districts. Of those who attend a large proportion does not express its views.

The scheme which is being discussed is the outcome of round table conferences between representatives of the Government and medical representatives partly supplied by the British Medical Association.

Many members of the Association claim that the views set forth by their representatives were not the views of the profession as a whole. Many members of the Association who were on active service while the future work of the profession was being discussed and planned have expressed disagreement with the part played by the British Medical Association representatives, and have since left the Association. A rival organization has been formed to look after their particular interests. None of this makes for unity, and without combination the profession will not get justice done to it. If ever there was a time when medical men required to look after the interests of the profession it is now. The new measures about to be introduced affect every member of the profession very deeply.

I would therefore suggest that referendum papers on all important items be printed and circulated among all members of the profession. In that way would be obtained the views of those members of the Association who are unable to attend the local meetings and those who no longer see eye to eye with the Association. The Government will apparently only deal with the British Medical Association, but it is only fair that others who are just as vitally affected should be heard also. In this way the profession might oppose a combined front.—I am, etc.,

Brixham, June 22nd. W. SIDNEY SWEET.

VOLUNTARY HOSPITALS AND PAYING PATIENTS.

SIR,—If the present hospitals are to admit paying patients there must be some means of relieving them of their already excessive number of free patients. Now a fair proportion of present hospital patients do not require the attention of those who are exclusively physicians, surgeons, or specialists, nor an institution with costly wards, and buildings, elaborate theatres, laboratories, and *x* ray departments; but they do need ordinary medical or surgical attendance and nursing, this latter including the strict carrying out of orders. If such patients could be cared for elsewhere, not only would the waiting list be got rid of, but there would be room for those who can pay something for their medical and nursing attendance, but who cannot pay the expenses of a nursing home and operation fee. This class has as good a right to the best treatment as any other, and the fees they would pay to the hospital would, as was shown in the original letter on the subject, greatly help the financial position of the voluntary hospitals.

These two advantages—more hospital accommodation and financial help to the present hospitals—could be attained by the plan I suggested in a letter to the BRITISH MEDICAL JOURNAL on January 25th. Perhaps I may be allowed briefly to summarize it. It is that there should be auxiliary hospitals (1) staffed by general practitioners attending their own cases, (2) admitting both (*a*) patients for whom the state assumes responsibility under the National Insurance Act and (*b*) private paying patients, (3) nursed by part-time nurses on the voluntary aid detachment plan with a limited trained staff, (4) built on the hutment principle, and (5) financed from the rates, with a grant from the Ministry of Health. Such auxiliary hospitals could be built for a fraction of the cost of the present hospitals, and the cost of maintenance would be more economical. They would admit all cases not requiring a major operation or special diagnosis or specialist treatment. Every doctor would thus have the opportunity of treating patients in hospital, and insurance doctors would be enabled to undertake the additional treatment that they will probably be required to undertake, either in- or out-patient treatment, under much better conditions than would be possible at the doctor's or the patient's house. The plan would also allow emergencies, such as the late influenza and pneumonia epidemics, to be dealt with by the use of additional huts or tents.

While possessing these advantages it might be made the means of relieving the strain on the voluntary hospitals both as regards patients and finances.—I am, etc.,

Boscombe, June 16th. F. C. BOTTOMLEY.

Obituary.

HERBERT WILLIAM FAGGE, M.R.C.S., L.S.A., Lutterworth.

HERBERT FAGGE, who died at Lutterworth on June 11th, aged 75, was the last survivor of the family of Charles Fagge, of Hythe, Kent. Like his great-grandfather Felix Fagg of Ashford, his grandfather Charles Fagg of Ashford, his father, his two elder brothers, and his two sons, Herbert Fagge was educated at Guy's Hospital. He took the diploma of M.R.C.S. in 1866; at that time his uncle John Hilton was surgeon to, and his eldest brother C. Hilton Fagge was on the junior staff of, the hospital.

After serving as house-surgeon at the Royal Free Hospital, Herbert Fagge went into partnership at Lutterworth with the late Dr. Buzzard in 1867, and after this partnership had been dissolved a few years later, continued to practise there alone until the end of 1913, some forty-seven years in all. For nearly forty years he was medical officer and public vaccinator for the 1st District and Workhouse, Lutterworth Union. His wife and youngest son predeceased him; his eldest son, R. Hilton Fagge, practises at Melton Mowbray, and his younger son, C. H. Fagge, is surgeon to Guy's Hospital.

Practically the whole town was represented at his funeral on June 14th, a fact which bore testimony to the regard with which his life's work amongst them had inspired his fellow townsmen.

CAPTAIN JOHN HENRY MAGOVENY, R.A.M.C.(S.R.), was reported as having died on service, in the casualty list published on May 23rd. He was educated at Glasgow University, where he graduated M.B. and Ch.B. in 1913. After filling the posts of house-surgeon of the Victoria Infirmary, Glasgow, and house-physician of the Royal Infirmary, Bradford, he took a commission as lieutenant in the Special Reserve of the R.A.M.C. on September 23rd, 1914, and was promoted to captain on April 1st, 1915.

CAPTAIN ROBERT MACKENZIE MORISON, R.A.M.C., was reported as having died on service, in the casualty list published on May 23rd. He was educated at Glasgow University, where he graduated M.B. and Ch.B. in 1908, and after acting as house-surgeon of Greenock Infirmary, and as assistant medical officer at Wye House Asylum, Buxton, he went into practice at Greenock. He took a temporary commission as lieutenant in the R.A.M.C. on June 1st, 1916, was promoted to captain after a year's service, and received the Serbian Order of St. Sava on April 21st, 1917.

CAPTAIN ROBERT WILLIAM SKINNER MURRAY, R.A.M.C. (S.R.), was reported as having died on service, in the casualty list published on May 23rd. He was educated at Aberdeen University, where he graduated M.B. and Ch.B. in 1912, and also took the D.P.H. in 1913. After serving as house-surgeon of the General Hospital, Tunbridge Wells, he took a commission as lieutenant in the Special Reserve of the R.A.M.C. on November 28th, 1914, and was promoted to captain on May 28th, 1915.

Universities and Colleges.

UNIVERSITY OF OXFORD.

AT a congregation held on June 19th, the degree of Doctor of Medicine was conferred upon E. L. Collis.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on June 12th.

Results of Examinations.—A report from the Board of Examiners in Anatomy and Physiology for the Fellowship showed that at the recent examination 73 candidates were examined, including 20 admitted under the special war conditions (of whom 15 were successful); and 53 admitted under the advisory conditions (of whom 23 were successful).

Diplomas of Fellowship were granted to 15 candidates found qualified at the recent examination.

Universities of Allahabad and Malta.—These were added to the list of universities whose graduates in medicine and surgery may present themselves for examination for the Fellowship without first becoming members of the College.

Examinations in Dental Surgery.—On the recommendation of the Board of Examiners in Dental Surgery it was decided to revert to the practice of holding three examinations for the l cence in dental surgery in the year in view of the large number of students now in the schools. The first professional examination will be held on October 3rd, 1919; January 29th, April 29th, 1920—and the second on November 7th, 1919; February 27th, May 28th, 1920.

Mr. Jonathan Hutchinson was elected a member of the Board of Examiners in Dental Surgery in the vacancy occasioned by the retirement of Sir Charles Ballance.

Appointment of Examiners.

The following appointments were made. Anatomy and Physiology for the Fellowship:

ANATOMY.—A. R. Thompson, W. Wright, J. E. S. Frazer, G. Taylor.
PHYSIOLOGY.—J. B. Leathes, H. W. Lyle, F. A. Bainbridge, A. R. Short.

Examiners under the Conjoint Examining Board.

ELEMENTARY BIOLOGY.—T. W. Shore, J. P. Hill.
ANATOMY.—A. Thomson, F. W. Jones, F. G. Parsons.
PHYSIOLOGY.—G. A. Buckmaster, H. E. Roaf.
MIDWIFERY.—J. S. Fairbairn, G. F. D. Smith, C. Lockyer, G. D. Robinson.
DIPLOMA IN PUBLIC HEALTH.—*Part I:* J. W. H. Eyre. *Part II:* F. N. K. Menzies.
DIPLOMA IN TROPICAL MEDICINE AND HYGIENE.—*Bacteriology:* J. W. H. Eyre. *Diseases and Hygiene of Tropics:* C. W. Daniels.

Appointment of Lecturers.—Hunterian Professors: Dr. Arthur Keith, F.R.S., Sir Berkeley G. A. Moynihan, K.C.M.G., C.B., Mr. Walter George Spencer, Mr. James Sherren, Mr. Harry Tyrrell Gray, Mr. Rupert Farrant, M.C., Mr. Vincent Zachary Cope. Arris and Gale Lecturers: Dr. Frederic Wood Jones, Professor Grafton Elliot Smith, F.R.S. Sir John Tweedy was asked to give the first Thomas Vicary Lecture, the historical lecture in anatomy and surgery instituted by the Barbers' Company. Professor Arthur Keith, F.R.S., was reappointed Arnott Demonstrator.

Election of Members of Council.—The Council wishes to remind Fellows that the election of members of the Council takes place on July 3rd, 1919. Voters by proxy should send in their votes by that date. Votes can be recorded in person at the College between 2.30 and 4.30 on July 3rd.

Medical News.

DR. W. B. CRAWFORD TREASURE was recently presented with a silver cigar-box and cheque at a meeting of the Cardiff Division of the South Wales and Monmouthshire Branch. The presentation was made in recognition of Dr. Crawford Treasure's long and valuable services to the medical profession at the Representative Meetings of the British Medical Association and as honorary secretary of the Cardiff Local Medical and Panel Committee.

DURING the business of the recent Group Conference at Plymouth, the chairman, Mr. Robert Jaques, claimed the indulgence of the meeting to present to Dr. R. H. Wagner, honorary secretary of the late Local Medical War Committee, a handsome silver salver together with a wristlet watch for his daughter as a token of appreciation of his and Miss Wagner's valuable services to the committee.

IT was stated in the JOURNAL of April 5th that Miss M. M. Gibson had placed in the hands of the Royal Society of Medicine a sum of money sufficient to provide a scholarship of the yearly value of at least £250, in memory of her father, the late Mr. William Gibson of Melbourne, Australia. The scholarship is intended for qualified medical women who are subjects of the British Empire, and is tenable for a period of two years. The first award has been made to Miss M. Esther Harding, M.B., B.S. Lond.

A DANCE in aid of the Royal Medical Benevolent Fund Guild will be held at Princes Galleries on Wednesday, July 16th, at nine p.m. Tickets (one guinea, including supper and bridge) may be obtained from the honorary secretary, Miss Tweedy, 100, Harley Street, W.1.

THE Brussels Medical Graduates' Association proposes to hold a dinner in July; particulars can be obtained from the honorary secretary, Dr. Arthur Haydon, 31, Westbourne Terrace, Hyde Park, W.2.

A COURSE of clinical lectures for advanced students, open free to members of the profession, will be given by Mr. Frank Kidd, F.R.C.S., at the London Hospital, on Wednesdays, at 4.15 p.m., during August, beginning on August 6th. The subject will be intermittent blood infections and their relation to certain common diseases of the kidney, prostate, testicle, and other organs.

A SOCIETY for the destruction of agricultural pests was founded in London on June 25th, with the Duke of Bedford as president and Lord Northcliffe as vice-president. Lord Aberconway, who presided, said that he intended to introduce a bill for the destruction of rats, making it compulsory for local authorities to take action. For the present the chief activities of the new society will, it would appear, be directed against the rat, and this invests the project with medical interest. The rat is not only destructive of cereals, but is a mischievous carrier of disease.

THE Local Government Board for England and Wales has promulgated new cerebro-spinal fever regulations, certain difficulties having arisen under those issued last year. The new order makes regulations enabling county councils and county borough councils to provide or arrange for the examination and treatment of persons suspected to be suffering from cerebro-spinal fever, and of contacts, and to supply serum and vaccine for the treatment of cases, or suspected cases, of the disease, and apparatus for the use of the serum or vaccine. The terms of the order have been extended to include vaccines, as there is reason to believe that subacute and chronic cases have derived benefit from treatment with sensitized vaccine.

A MEDICAL missions exhibition, under the chairmanship of the Bishop of Stepney, will be open until July 5th in the yard and crypt of the church of St. Martin-in-the-Fields, Trafalgar Square. All the missionary societies doing medical work abroad which have London head quarters are co-operating in the effort. The ignorance and superstition which accompany native treatment of the sick among many primitive peoples are effectively illustrated by native instruments and compounds, and there are also on view, in contrast to these, the medical missionary's camp equipment and the interiors of dispensaries and hospitals in the East. There are large models of the Tarn Taran leper asylum in the Punjab, the Jerusalem hospital of the London Jews' Society, the Ping Ying hospital in China, and the Ludhiana School of Medicine, the last affording visitors an opportunity of studying the modern methods of training Indian women for responsible medical positions.

THE thirteenth annual meeting of the Museums Association will be held at Oxford on July 8th and the two following days. The meetings will be held in the Museums, where all members attending will be welcomed by Sir Herbert Warren, K.C.V.O., president of Magdalen, at 10 a.m., on Tuesday, July 8th. Afterwards an address will be given by the president, Sir H. Howarth, K.C.I.E., F.R.S., and this will be followed by the reading of a series of papers on museums in Oxford. Wednesday morning will be occupied by discussions on the propriety of transferring the control of museums to the education authority, and on various matters of detail. On Thursday Dr. W. Evans Hoyle, curator of the Welsh Museum, Dr. F. A. Bather, of the Natural History Museum, and Mr. Isaac Williams of Cardiff, will open a discussion on the desirability of establishing a diploma for museum curators, and on the course of training that should be required. In the afternoon visits will be paid to local museums and places of historic interest. There will be a dinner on Wednesday evening. Further information can be obtained from the secretary, Miss W. Blackman, Pitt-Rivers Museum, Oxford.

Letters, Notes, and Answers.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL.

The postal address of the BRITISH MEDICAL ASSOCIATION and BRITISH MEDICAL JOURNAL is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, *Aitiology, Westrand, London;* telephone, 2631, Gerrard.
2. ACTING FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London;* telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Medisecra, Westrand, London;* telephone, 2634, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

QUERIES AND ANSWERS.

INCOME TAX.

E. M. S. inquires as to the method of obtaining repayment of income tax deducted from his gratuity on demobilization.

*** The Chancellor undertook to refund those deductions when statutory authority could be obtained. The Finance Act for the current year is now before the House of Commons, and we presume that our correspondent's army agents will, when the Act has received royal sanction, be authorized by the War Office to make a special payment to his account, or alternatively that the War Office will refund the amount direct. It is not practicable to do anything further in the matter until the Act is passed.

"HARD UP" inquires whether the unassessable gratuity should be included as part of his total income for purpose of abatement, etc.

*** No; the general rule applies that what is not assessable to the income tax cannot be regarded as "income."

PORK IN SUMMER.

A. G. asks: Is pork a wholesome article of food at all times of the year? I know people who would rather go without meat altogether than eat it during May, June, July, or August, saying that it is not in season then. Is there any reason why, when obtainable, it should not be eaten at any time of the year?

*** We do not know of any scientific evidence in support of the popular English belief to which our correspondent refers. It is known that pork, owing to the distribution of fat around the muscular fibres, is more slowly digested than beef or mutton. This may help to account for a prejudice against its use in the hot months of the year, but we can find no specific explanation of the current English belief, which seems, moreover, not to be held on the Continent. The proverbial saying that oysters should not be eaten during a month without an "r" need not, we apprehend, be extended to pork.

LETTERS, NOTES, ETC.

THE HIBERNATION OF MOSQUITOS.

CAPTAIN A. E. TAIT, R.A.M.C.(T.F.) (London, W.), writes: Although generally believed, it has not been conclusively proved that mosquitos live from one breeding season to another. In Macedonia it is June before any quantity of larvae are seen to be maturing to living mosquitos, and the end of October sees the finish of larvae reaching maturity. Therefore seven calendar months, or 212 days, are to be bridged over by hibernating mosquitos. At no time during these 212 days of non-breeding time was I unable to capture female specimens, Culex and Anopheles, all varieties, common during the breeding season in the area. I have recovered larvae in streams as late as March. These were bred out in bottles, but I am doubtful whether they would have matured under natural conditions. During March and April I have bred out in bottles, and have observed breeding naturally in streams and ponds other flies similar to mosquitos, and passing through larval and pupal stages. According to Stitt, the longest period a mosquito has lived in captivity is four months—I presume lunar months, or 112 days. I had alive on March 17th, 1919, a mosquito captured on October 30th, 1918; it has lived in captivity, through varying vicissitudes, therefore, for 168 days. This would appear to be a record. By this experiment 168 days of the 212 days non-breeding period has been bridged.

SALARIES OF TUBERCULOSIS OFFICERS.

"T. O." writes: As attention has been drawn to the raising of salaries of medical officers of health by 33⅓ per cent., I would call attention also to the fact that a similar rise was advocated by the British Medical Association in the case of tuberculosis officers. Before the war the minimum salary for a full-time tuberculosis officer was £500, yet these appointments are now frequently advertised at £600, instead of £650 (£500 + 33⅓ per cent.). In the last issue of the BRITISH MEDICAL JOURNAL the post of tuberculosis officer for the Metropolitan Borough of Battersea is advertised at only £500—the pre-war rate. There appear to be many cases in which the appointment of tuberculosis officer is still offered at only £500, although not styled "assistant" tuberculosis officer; and, although in some instances he may work under a "chief tuberculosis officer" in others this title is assumed by the medical officer of health. Where this latter is the case the tuberculosis officer should receive the full salary of £650, according to the British Medical Association's resolution.

*** We have from another tuberculosis officer a communication to the same effect. The letter addressed by the British Medical Association to the local authorities of the United Kingdom under the control of the Local Government Boards, and to education authorities of city or borough councils in Scotland, expressed the opinion that the salaries of all medical officers of health, school medical officers, and other medical officers or assistant medical officers to local authorities should be increased by 33⅓ per cent. over pre-war rates. We assume that this applies to tuberculosis officers, and believe that this was the intention.

"THE LOST LEADER."

THE war and other causes have brought the drama to such a low ebb in London just now, that it becomes almost our duty to welcome a play that is a play, when with a trifling effort it can be brought within the range of medical interest. In the first place "The Lost Leader," by Lennox Robinson, is performed at the Court Theatre under the direction of Mr. J. B. Fagan, the versatile son of a distinguished Belfast surgeon. In the second place one of the leading persons in the piece is a London physician, learned in psychotherapy, whose fishing trip to a remote Irish village becomes a "busman's holiday"; and this part is played with a fine feeling for character by that accomplished actor Mr. Arthur Whitby, whose boyhood was spent in a west country doctor's home. With this excuse for straying into dramatic criticism we may very briefly say that the play is well written and admirably acted; that its plot is founded on the legend that Charles Stewart Parnell did not die when the world accounted him dead, but hid himself, after a sham funeral, in an obscure corner of Ireland; and that the third and last act—good as it is—seems rather more of a political tract than an act. How this play would be received in Dublin, or in Belfast, we cannot guess, but we regret to learn that it is soon to be taken off the London stage. Mr. Norman McKinnel is at his best, and his reincarnation of the lost leader of the eighties may recall poignant memories to those who "loved him so, followed him, honoured him."

SEXUAL BALDERDASH.

TEMPORARY SURGEON, R.N., writes: In a book enjoying some circulation in this country, entitled *The Science of a New Life*, by John Cowan, M.D., published by the J. S. Ogilvie Publishing Company, N.Y., and addressed "particularly to those who contemplate marriage," the following information is to be found:

1. If a married couple should desire to have their future offspring a fruit-grower "they should together enthusiastically read, study, and—eat fruit" before coition.
2. The time selected for sexual connexion should be "between eleven and twelve o'clock in the forenoon" of "only a clear, bright day, when the sun is shining." Climate and occupation would thus be of considerable importance were it not for the following rule:
3. After conception there should elapse "an interval of nearly three years in which no intercourse should be had by the husband or wife."
4. The treatment of gonorrhoea in the male consists only in rest, stoppage of alcohol and tobacco, plain diet, and bathing in tepid water.
5. Syphilis is treated on similar lines with the important addition of cold water. Such treatment, we are told, "will effectually eradicate the disease from the system." "Mercury or no other drug ever has or ever will cure syphilis—or, for that matter, any other disease." In fact treatment by mercury and potassium iodide "has and ever will result in harm to the patient."

I consider the dissemination of such doctrines among the lay public, especially at the present time, is greatly to be deplored. Is there no effective remedy?

THE following appointments of certifying factory surgeons are vacant: Cowdenbeath (Fife), Glyn Ceiriog (Denbigh), Manchester (S.E.) (Lancaster), Yalding (Kent).

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.